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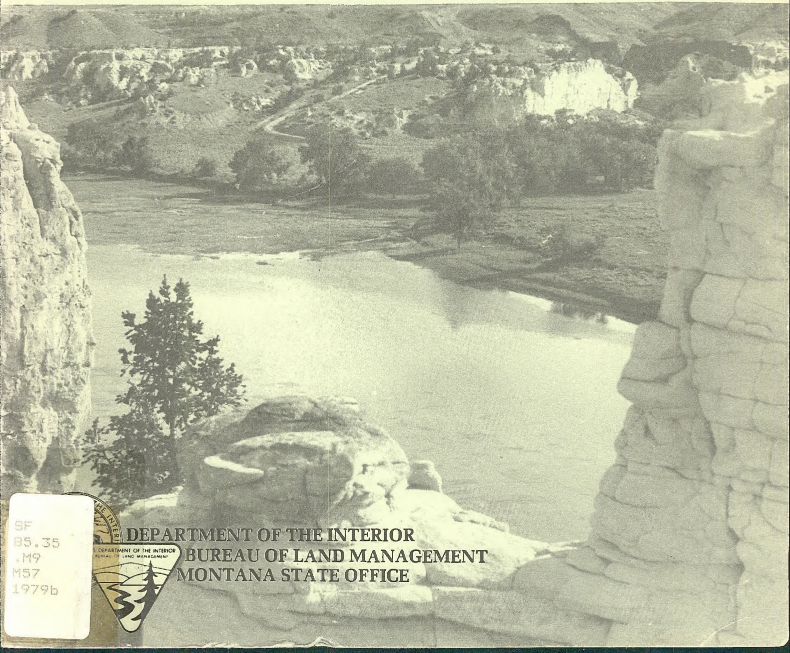
MISSOURI BREAKS

Grazing Environmental Statement

FINAL



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DEPARTMENT OF THE INTERIOR

FINAL ENVIRONMENTAL STATEMENT ON GRAZING MANAGEMENT IN THE MISSOURI BREAKS OF MONTANA

(TO BE USED WITH THE DRAFT)

Prepared By

BUREAU OF LAND MANAGEMENT
DEPARTMENT OF THE INTERIOR

Frank Gregg
DIRECTOR

AUGUST 1979

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SUMMARY

Draft ( ) Final (x) Environmental Statement
Department of the Interior, Bureau of Land Management

1. **Type of Action:**
   Administrative (x) Legislative ( )

2. **Brief Description of Action:** The Bureau of Land Management proposes to implement an improved grazing management program in the "Missouri Breaks" area of central Montana. The proposed action involves nearly 2,200,000 acres of public land intermingled with over 6,300,000 acres of state and private land. Components of the proposed action are:

   A. Continued operation of 42 existing Allotment Management Plans (AMPs).

   B. Revision of 10 existing AMPs.

   C. Implementation of 266 proposed AMPs.

   D. Less intensive management on approximately 251,000 acres of public land.

   E. Continuation of unallotted status on approximately 31,000 acres of public land.

   F. Construction of various range improvements necessary to implement the grazing systems included in the proposed and revised AMPs.

   G. An overall reduction in livestock use of one percent (ranging from +158 percent to -58 percent on individual allotments).

3. **Summary of Environmental Impacts:**
   Vegetation cover and litter would increase thereby reducing erosion and improving watershed conditions. Sediment yield would be reduced by approximately 186,000 tons annually. Although livestock distribution would be improved, concentrations of livestock would continue near water sources. Where grazing systems are implemented, desirable forage species would increase and vegetation vigor and reproduction would be improved. An increase of about 24,000 AUMs (8% increase from initial stocking proposed) is projected by the year 2000. There would be an increase in the amount of range in excellent condition (270,000 acres) and a decrease in the amount in poor condition (2,600 acres). Overall, wildlife population numbers would increase about 6%. Disturbance of archaeological and historical resources would occur due to construction of range improvements and livestock trampling. The proposed range improvements would slightly reduce visual quality; however, recreational opportunities, primarily hunting, would be improved. The additional forage resulting from AMP implementation would result in a small increase ($284,000 yearly) in personal income. The construction expenditures for the range improvements would result in a more significant ($1,532,000), though short-term, increase in income.

4. **Alternatives Considered**
   A. Continuation of the Present Grazing Management Program (No Action)
   B. Elimination of Livestock on Public Lands
   C. Reduced Levels of Livestock Use
   D. Livestock Forage Maximization.

5. **Comments Have Been Requested From the Following:**
   see attachment

6. **Date Environmental Statement Made Available to EPA and the Public:**
   Draft Environmental Statement: March 9, 1979
   Final Environmental Statement:

ATTACHMENT

Comments on the draft environmental statement were requested from the following agencies, interest groups, and individuals. Those marked with an asterisk (*) submitted written responses.

Federal

Advisory Council on Historic Preservation*
Army Corps of Engineers*
Department of Agriculture
    Forest Service*
    Soil Conservation Service*
Department of Commerce
Department of the Interior
    Bureau of Indian Affairs*
    Bureau of Mines
    Bureau of Reclamation
    Fish and Wildlife Service*
    Geological Survey
    Heritage Conservation and Recreation Service*
    National Park Service*
Environmental Protection Agency*

Congressional

Office of Congressman Marlenee
Office of Congressman Williams
Office of Senator Baucus
Office of Senator Melcher

Montana - State Agencies

Association of State Grazing Districts
Department of Community Affairs
Department of Fish and Game*
Department of Livestock*
Department of Natural Resources and Conservation*
Department of State Lands*
Governor's Office
Historical Society*
Old West Regional Commission

County Commissioners

Blaine County
Chouteau County
Fergus County
Garfield County
Judith Basin County
McCone County
Musselshell County
Petroleum County
Phillips County
Valley County

Local Government

Fort Benton Mayor
Glasgow Mayor
Jordan Mayor
Lewistown Mayor
Malta Mayor
Miles City Mayor
Roundup Mayor
Stanford Mayor
Winnett Mayor
Wolf Point Mayor

Other Organizations

Ada County Fish and Game League (Idaho)
American Fisheries Society
American Horse Protection Association*
Audubon Society
Badlands Cooperative State Grazing District (CSGD)
Chain Buttes CSGD
Crooked Creek CSGD*
Defenders of Wildlife*
Fergus County Soil and Water Conservation District*
Flatwillow CSGD
Fort Belknap Community Council*
Fort Peck Game Range Committee*
Friends of the Earth
Hill County Wildlife Association*
Grassrange CSGD
Indian Butte CSGD
International Society for the Protection of Mustangs and Burros
Izaak Walton League of America
Montana Farm Bureau
Montana Farmers Union
Montana Public Lands Council*
Montana Stockgrowers Association
Montana Wilderness Association*
Montana Wildlife Federation*
Montana Woolgrowers Association
National Council of Public Land Users
Natural Resources Defense Council*
Nevada Outdoor Recreation Association, Inc.
Northern Plains Resource Council
Pacific Legal Foundation
Phillips County Cowbelles
Phillips County Livestock Association
Phillips County Soil and Water Conservation District
Public Lands Council
Sierra Club*
Society for Range Management
South Phillips County CSGD
The Humane Society of the United States
The Wildlife Society
Trout Unlimited
Valley County Soil and Water Conservation District
Weede CSGD
Wild Horse Organized Assistance
Wilderness Society*
Wildlife Management Institute
Williams Coulee CSGD
Winnett CSGD

Individuals

All livestock operators with existing, revised, or proposed Allotment Management Plans.*

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INTRODUCTION

The draft Missouri Breaks Grazing Environmental Statement was filed with the Environmental Protection Agency and released to the public on March 9, 1979. The public review period extended until April 30, 1979, a period of 52 days.

Five public meetings were held during the first week of April in Havre, Malta, Lewistown, Jordan, and Glasgow. The questions and statements from these meetings and the letters received during the review period were a major factor in identifying parts of the draft that needed correction, clarification, or expansion. Because the modifications needed were relatively minor, the original material contained in the draft did not warrant reprinting.

Therefore, the final environmental statement is divided into two parts. Part 1, "Consultation and Coordination," includes a discussion of the preliminary consultation on the land use planning which led to the ES, the public involvement and consultation during preparation of the environmental statement, and responses to all public comments received on the draft. This is essentially an update of Chapter 9 in the draft statement. Part 2 contains revisions made to the draft based on new or more complete information, changes in Bureau guidance since release of the draft, or errors and omissions identified through the public review process. Where significant changes in the draft environmental statement were identified, the entire page with the changes highlighted has been reprinted. This will facilitate easy cross-referencing between the draft and final environmental statements.

PART 1
CONSULTATION AND COORDINATION

PART 1

CONSULTATION AND COORDINATION

The Missouri Breaks Environmental Statement was prepared by BLM District and State Office specialists with expertise in range management, wildlife, recreation, landscape architecture, archaeology and history, soils, watershed management, hydrology, geology, and economics. Writing of the ES began in January 1978; however, a complex process over a two and one-half year period preceded the writing phase. This process included resource inventory, land use planning, public and other agency coordination, and preparation of allotment management plans. Consultation and coordination with agencies, organizations, and individuals occurred in a variety of ways throughout this preparation process.

PRELIMINARY CONSULTATION

Update and revision of the existing land use plans for the ES area (ten Management Framework Plans, or MFPs) began in 1975. Resource data gathered in the concurrent development of allotment management plans was recycled into the resource data base used in the land use planning process. During this update process, federal, state, and local organizations were contacted for assistance. All public land users and other interested groups and individuals were notified through letters and news releases of the initiation of the planning system updates. In late 1977 and early 1978, public information meetings or open houses were held to present the multiple-use recommendations from the MFPs. Open houses were held in Havre, Malta, Glasgow, Lewistown, and Jordan. Discussions of the Missouri Breaks ES with interested parties occurred throughout the update process.

Preparation of allotment management plans for the ES area began in 1975. Nearly all livestock operators were contacted during preparation of draft allotment management plans and most were contacted after the drafts were complete. All AMPs were available for review by livestock operators and public interest groups. All livestock operators in the Lewistown District were advised by letter of the effect, if any, of the proposed AMP on their operation. The AMPs will remain in draft form until a decision is made on the content and adequacy of the Missouri Breaks ES. Prior to implementation of the AMPs, close coordination and cooperation with the affected livestock operators will be necessary.

PUBLIC INVOLVEMENT AND CONSULTATION DURING DEVELOPMENT OF THE ENVIRONMENTAL STATEMENT

A news release was distributed in October 1975 discussing initiation of the planning process which would lead to preparation of grazing ESs on all public lands in Montana. This news release indicated that the Missouri Breaks ES would be the first of eight such studies to be completed in Montana by 1988.

Public involvement throughout the integrated process of planning system updates and allotment management plan development stressed the close ties with the upcoming ES. Numerous meetings were held over the two and one-half year period with public agencies, service organizations, special interest groups, and private individuals to explain and solicit comments on the entire process. These meetings included entities such as the various cooperative state grazing districts, Montana Public Lands Council, Montana Stockgrowers Association, several chambers of commerce, and local rod and gun clubs.

The State Historic Preservation Officer reviewed draft material regarding prehistoric and historic sites. His comments noted that any affected site on or eligible for the National Register of Historic Places must be reviewed by the Advisory Council on Historic Preservation. The Historical Society's review of the DES (draft environmental statement) indicated that a Memorandum of Understanding currently being negotiated between the BLM and the Advisory Council on Historic Preservation should be noted in the text (see response to Historical Society's letter of May 1, 1979). The Advisory Council was provided an opportunity to review the draft environmental statement. The Council noted that it appeared that the BLM understood its responsibilities regarding Section 106 of the National Historic Preservation Act and would carry it out in the future (see response to April 30, 1979, letter from the Council).

Informal consultation with the Fish and Wildlife Service regarding threatened and endangered species took place throughout the ES preparation process. The Billings Area Office informally reviewed all draft sections pertaining to threatened and endangered species and indicated that consideration of such species was adequate. The formal review comments on the DES did not point out any problems with threatened and endangered species (see May 4, 1979, letter from Fish and Wildlife Service).

In addition, the ES team consulted with and/or received input from the following organizations during the writing phase of the DES:

Federal Agencies

Farmers Home Administration

Fish and Wildlife Service

Forest Service

Heritage Conservation and Recreation Service

Soil Conservation Service

State Agencies and Organizations

Montana Agricultural Experiment Station

Montana Department of Community Affairs

Montana Department of Fish and Game

Montana Department of Natural Resources and Conservation

Montana Highway Department

Montana Historical Society

Montana State University

University of Montana

Special Interest Groups

Montana Council of the Boy Scouts of America

Montana Public Lands Council

Montana Stockgrowers Association

Comments on the draft environmental statement (DES) were requested from the following agencies and interest groups. Those who provided comments are noted by an asterisk (*).

Federal Agencies

Army Corps of Engineers*

Advisory Council on Historic Preservation*

Department of Agriculture

  Forest Service*

  Soil Conservation Service*

Department of Commerce

Department of the Interior

  Bureau of Indian Affairs*

  Bureau of Mines

  Bureau of Reclamation

  Fish and Wildlife Service*

  Geological Survey

  Heritage Conservation and Recreation Service*

  National Park Service*

Environmental Protection Agency*

Congressional Representatives

Office of Congressman Marlenee

Office of Congressman Williams

Office of Senator Baucus

Office of Senator Melcher

Montana - State Agencies

Association of State Grazing Districts

Department of Community Affairs

Department of Fish and Game*

Department of Livestock*

Department of Natural Resources and Conservation*

Department of State Lands*

Governor's Office

Historical Society*

Old West Regional Commission

County Commissioners

Blaine County

Chouteau County

Fergus County

Garfield County

Judith Basin County

McCone County

Musselshell County

Petroleum County

Phillips County

Valley County

Local Government

Fort Benton Mayor

Glasgow Mayor

Jordan Mayor

Lewistown Mayor

Malta Mayor

Miles City Mayor

Roundup Mayor

Stanford Mayor

Winnett Mayor

Wolf Point Mayor

Other Organizations

Ada County Fish and Game League (Idaho)

American Fisheries Society

American Horse Protection Association*

Audubon Society

Badlands County Cooperative State Grazing District (CSGD)

Chain Buttes CSGD

Crooked Creek CSGD*

Defenders of Wildlife*

Fergus County Soil and Water Conservation District*

Flatwillow CSGD

Fort Belknap Community Council*

Fort Peck Game Range Committee*

Friends of the Earth

Grassrange CSGD

Hill County Wildlife Association*

Indian Butte CSGD

Izaak Walton League of America

Montana Farm Bureau

Montana Farmers Union

Montana Public Lands Council*

Montana Stockgrowers Association

Montana Wilderness Association*

Montana Wildlife Federation*

Montana Woolgrowers Association

National Council of Public Land Users

Natural Resources Defense Council*

Nevada Outdoor Recreation Association, Inc.

Northern Plains Resource Council

Oregon Environmental Council

Pacific Legal Foundation

Phillips County Cowbelles

Phillips County Livestock Association

Phillips County Soil and Water Conservation District

Public Lands Council*

Sierra Club*

Society for Range Management

South Phillips County CSGD

The Humane Society of the United States

The Wildlife Society

Valley County Soil and Water Conservation District

Weede CSGD

Wild Horse Organized Assistance

Wilderness Society*

Williams Coulee CSGD

Winnett CSGD

Individuals

All livestock operators with existing, proposed, or revised Allotment Management Plans*

PUBLIC COMMENTS AND RESPONSES ON THE DRAFT ENVIRONMENTAL STATEMENT

A 52-day public comment period (March 9 to April 30, 1979) was provided on the draft environmental statement (DES) to allow for public review and comment on the adequacy of the environmental impact analysis for the proposed action and alternatives.

The DES was filed with the Environmental Protection Agency on March 9, 1979. The Notice of Availability was published in the March 19, 1979, issue of the *Federal Register*. The notice also announced a review period ending April 30, 1979, and included notification of public meetings in Havre, Malta, Lewistown, Jordan, and Glasgow during the week of April 2-6, 1979. After the DES was filed with the Environmental Protection Agency, copies of the document were mailed to federal, state, and local government agencies and to non-government organizations and individuals for review and comment. In addition, copies of the DES were sent to all livestock operators with existing, revised, or proposed allotment management plans. Nearly 750 copies of the DES were distributed. Copies of the DES were sent to all groups and individuals who requested them. Also, copies were available at the public libraries in Chinook, Malta, Fort Benton, Glasgow, Circle, Jordan, Winnett, Lewistown, Roundup, and Stanford; plus BLM offices in Billings, Havre, Malta, Glasgow, Lewistown, and Miles City.

In addition to the *Federal Register* notice, a news release announcing the availability of the DES was issued on March 14, 1979, from the BLM Washington Office and the Montana State Office to the national news media and all Montana daily and weekly newspapers, television stations, and radio stations.

During the review process, 44 letters were received from federal, state, and local agencies; private organizations such as special interest groups; and interested citizens such as livestock operators. All letters received are printed in this document.

All letters and public meeting questions and comments were reviewed and considered in the preparation of the final environmental statement (FES). Responses have been made to all comments which presented pertinent new information, questioned DES impact analysis or data, or raised issues bearing directly upon the impacts of implementation of the proposed action or alternatives.

The treatment of comments is divided into two parts: (1) those comments resulting from public meetings, and (2) those comments resulting from letters received during the review period.

Public Meetings

The Bureau of Land Management held five public meetings on the draft environmental statement at the following times and locations:

April 2, 1979 - Havre, Montana, 7:30 p.m.
April 3, 1979 - Malta, Montana, 7:30 p.m.
April 4, 1979 - Lewistown, Montana, 7:30 p.m.
April 5, 1979 - Jordan, Montana, 7:30 p.m.
April 6, 1979 - Glasgow, Montana, 7:30 p.m.

All meetings had a three-part format consisting of (1) a 12 minute slide presentation giving a general overview of the proposed action, alternatives, and the attendant environmental consequences; (2) a question and answer period; and (3) the acceptance of statements. Twenty-eight individuals asked questions or gave statements at the five public meetings. A list of the individuals speaking at the public meetings is provided in Table 1. Each speaker has been assigned an index number to simplify identification of comments and responses. A professional court reporter prepared a verbatim transcript of all meetings. The public meeting transcripts have been sent to the Director of the BLM. The final environmental statement is being forwarded to the Secretary of the Interior and the Environmental Protection Agency.

Statements or questions given at the public meetings have been quoted or, when lengthy, complex, or expressed by more than one individual, paraphrased. The number following the comment refers to the index number of the individual or individuals expressing that concern. The comments and responses are presented by major topic in order to facilitate responses to similar comments. Although answers were given to questions at the public meetings, many concerns are again addressed in the written responses in this document.

Wildlife

#1. Commentator (1) (see Table 1) - We can only condone sagebrush control when it will in no way affect wildlife. We therefore oppose the sagebrush spraying proposed in the DES. Contour furrowing should be allowed only when it is beneficial to both livestock and wildlife on a long-term basis. Plowing and seeding should include only native species and be beneficial to all users.

Response - Artificial land treatments such as sagebrush spraying, contour furrowing, or plowing and seeding were proposed only when it was determined that the desired results could not be obtained through normal grazing management practices. The amount of vegetation manipulation proposed was kept to a minimum due, in part, to the controversial nature of such actions. Where private lands are involved, the BLM cannot control vegetation manipulation practices. Nearly two-thirds of the plowing and seeding, over one-quarter of the sagebrush spraying, and over one-tenth of the contour furrowing included in the proposed action is on private lands.

Any mechanical or chemical alteration of vegetation done on public lands will be done in compliance with Supplement No. 1 to the Memorandum of Understanding between the BLM and the Montana Department of Fish and Game. This agreement calls for early coordination on any such efforts and provides the mechanism for extensive wildlife related input into the decisionmaking process. The views of the Department of Fish and Game and other interested groups and individuals will be carefully reviewed prior to a final decision on program implementation.

#2. Commentator (1) - ". . . on rest rotation pastures we would like to see some residual cover left in the year-long pastures and that any fencing programs or water placements that are put on these allotments that consideration be given to the upland game bird populations so they do not adversely affect or adversely decrease these populations in certain areas . . ."

Response - Most rest rotation grazing management systems do not permit year-long pasture use. Several management systems provide residual

TABLE 1

INDIVIDUALS SPEAKING AT PUBLIC MEETINGS

Commentator Index Number	Name	Meeting Location and Date
1	Gary Stuker	Havre, April 2
2	Jerry Halter	Havre, April 2
3	Charles Barnard	Malta, April 3
4	Ross Robinson	Malta, April 3
5	John Matovich	Malta, April 3
6	Dan Wiederrick	Malta, April 3
7	Monte Lund	Malta, April 3 & Lewistown, April 4
8	Keith Kluck	Malta, April 3
9	Torger Skiveland	Lewistown, April 4
10	Mons Teigen	Lewistown, April 4
11	Marie Hensleigh	Lewistown, April 4
12	Pete Jackson	Lewistown, April 4
13	Betty Cerovski	Lewistown, April 4
14	Bill Cutler	Lewistown, April 4
15	Dave Huston	Jordan, April 5
16	Bob Buffington	Jordan, April 5
17	Jerry Coldwell	Jordan, April 5
18	Janet Guptill	Jordan, April 5
19	George Wilson	Jordan, April 5
20	Carl Harbaugh	Jordan, April 5
21	Melvin Thomas	Jordan, April 5
22	Tom Wilson	Jordan, April 5
23	King Edwards	Jordan, April 5
24	Walt Collins	Glasgow, April 6
25	C.E. Hitch	Glasgow, April 6
26	Gene Etchart	Glasgow, April 6
27	Jack Nickels	Glasgow, April 6
28	Tom Putz	Glasgow, April 6

cover especially around reservoir shorelines by providing gate closures between pastures after use, thereby allowing some regrowth. Monitoring and evaluation of the effects of project development on upland game habitat would be instituted after project development. Mitigating measure #7 (page 4-1 of the DES) stipulates that an interdisciplinary team including a wildlife biologist would be involved in determining the location, time of construction, and construction stipulations for all proposed projects.

#3. Commentators (2) (3) (25) - Additional information on prairie dogs and prairie dog control should be provided.

Response - As indicated on page 2-32 of the DES, the BLM recognizes the need for prairie dog control at problem towns in conjunction with a comprehensive program for restoring public rangelands. In response to increasing public concern, it was determined that the management of prairie dogs warranted a more detailed treatment than could be adequately addressed in an environmental statement on livestock grazing. Consequently, a thorough analysis of prairie dogs on public lands and related control considerations has been presented in a draft Prairie Dog Habitat Management Plan. Arresting documented prairie dog damage to public rangelands and the prevention of serious prairie dog expansion onto adjacent private lands will receive major consideration in the management of this highly controversial animal. As with livestock, overgrazing by prairie dogs will be scientifically measured and documented before corrective action is taken.

It is anticipated the draft plan will be available for public review in late 1979. At that time, a copy will be widely distributed for public comments. All responses will be thoroughly evaluated before the plan is finalized.

#4. Commentator (2) - Predator or coyote control should be considered.

Response - Since predator control is not part of the proposed action, it was not discussed in any of the wildlife sections. Predator control on public lands continues to be a major issue of considerable controversy. The Department of the Interior (which includes the BLM) is currently studying the environmental impact statement published by the Fish and Wildlife Service in late 1978 on the Mammalian Predator Damage Management Program. Based on analysis of that EIS, BLM expects to issue a revised predator control policy by late 1979.

#5. Commentator (15) - "On page 26 (of the DES) it says, the mule deer population has gone down since the mid-fifties and they are not sure but think it is due to the drought and competing with livestock for food. Whoever put this dumb false statement in here should stand up so someone could take his picture. For several years from 1957 on, they sold unlimited hunting licenses on both sexes of deer until they cut the population by three-quarters. After they cut the hunting licenses down to where they should be, poisoning of coyotes was stopped by executive order and the coyotes have killed the deer faster than the does can raise them. We had a bad drought in 1961 and never had another one until 1977 and there isn't as many livestock on the range now as there was when we had 10 times as many deer."

Response - In the first paragraph under mule deer on page 2-26, and in the caption to Figure 2-5 on page 2-27, it was not intended to imply that drought and competition with livestock are the only or even the primary factors influencing mule deer populations. Hunting and predation by coyotes combined with other factors can also reduce local populations. It should be also pointed out that the decline referred to occurred throughout the west and despite extensive research, its cause or causes have not been pinpointed.

In 1975, a statewide deer research program was initiated by the Montana Department of Fish and Game to investigate the importance to deer populations of these factors and other factors such as severe winters. The objectives of this program are to:

1. Provide a more detailed understanding of the population biology and habitat relationships of deer and of the factors limiting deer numbers in the diverse environments in which deer occur in Montana;
2. Develop new or improved methods for measuring deer population and habitat parameters, new guidelines for applying existing information and technology more effectively, and/or new criteria for interpreting field data in terms of management needs; and
3. Establish new guidelines for consideration of the habitat requirements and relationships of deer in other game, range, forest, and land management programs and practices in Montana.

The results of the study are not yet available.

The assumption in the DES analysis was that the basic productivity of deer populations is influenced more by the condition of the vegetation (available food) than by outside influences such as hunting and predation. Since the vegetation is influenced by the proposed action and hunting and predation by coyotes are not, these latter factors were not discussed.

The fourth sentence in the first paragraph under mule deer on page 2-26 of the DES should be replaced with the following:

> This decline coincided with a general decline in deer populations throughout the west. Research on the causes of mule deer population fluctuations has been generally inconclusive. Although hunting, predation, and other factors can influence deer populations, many authors have concluded that, ". . . where deer are on a high quality diet, other environmental factors are not as important" (Pengelly 1976).

The last sentence in the caption to Figure 2-5 should be changed to read: "There is evidence that drought and competition with livestock, in addition to hunting, predation, and severe winters, are important limiting factors."

#6. Commentator (15) - "Does the BLM intend to go into game management?"

Response - The Bureau of Land Management manages public lands on the basis of multiple use and sustained yield. Section 103(C) of the Federal Land Policy and Management Act (90 Stat. 2745) defines multiple use as management of the public lands and their various resources values so that they are utilized in the combination that will best meet the present and future needs of the American people. The resource values specifically noted are recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific, and historical values. Thus, BLM is required to take into consideration wildlife and fish values in the management of the public lands.

#7. Commentators (15) (23)- More wildlife occur on private lands than on government land. Why can't the impact statement acknowledge that?

Response - There was no intent to minimize the importance of private land to wildlife. Even though private land is not specifically mentioned, the discussions in the wildlife sections of the DES generally refer equally to public and private land, since both are included within the ES area and AMP boundaries. The following sentence should be added to the second paragraph under Mule Deer on page 2-26 of the DES: "It can be seen by comparing Maps 2-6 and 2-22 of the DES that a large percentage of the several mule deer habitats (as well as other important wildlife habitats) occur on private lands."

Economic and Social Conditions

#8. Commentator (12) - Do you give consideration to the economic values of livestock versus the economic values for hunting?

Response - The annual direct livestock income from BLM lands and from the nine-county ES area was used in the impact analysis of the proposed action and alternatives (see pages 3-31 through 3-34 and 8-8 in the DES). The value of hunting was also considered in the analysis; however, quantification was far more difficult and not as detailed as that for livestock. The monetary value of one activity versus another is one of many factors used by BLM in making land use decisions.

#9. Commentators (15) (19)- How much did the ES cost?

Response - The approximate cost for preparing and printing the Missouri Breaks Environmental Statement is $350,000.

#10. Commentator (26) - Was the same kind of economic impact analysis done for the alternatives as the proposed action?

Response - Table 8-1, page 8-8 of the DES, provides a comparison of the same economic factors for the existing situation, the proposed action, and the four alternatives.

#11. Commentator (15) - The economic impact analysis should consider the rancher's gross income rather than net income.

Response - The economic impact analysis was based on gross rather than net livestock income figures. The term "livestock receipts" in Table 2-25 refers to the gross annual income flow of the livestock sector before consideration of taxes, operating costs, depreciation, etc. The average value per AUM derived from the figures for livestock receipts was the value against which most of the impacts to the livestock industry were measured.

Vegetation

#12. Commentator (2) - Some sagebrush control is needed.

Response - See response to comment #1.

#13. Commentators (7) (14) - The map on range condition (Map 2-5) is misleading because there is a significant difference between range in high fair condition and poor condition. Also, showing one color on an allotment makes it appear as though the entire allotment is in fair or poor range condition when, in reality, only a portion is in fair or poor condition.

Response - Map 2-5 should be deleted from the DES. The range condition map caused concern because there is a substantial difference between fair and poor condition range. In addition, there can be significant differences between high fair condition and low fair condition range. Thus, because Map 2-5 aggregated fair and/or poor condition range, the map portrayed conditions in a more negative light than necessary. Range condition classes are somewhat artificial; nevertheless, they are useful in arriving at a reasonable assessment of range condition. The scale of Map 2-5 did not allow a finer delineation of condition classes. Individual AMP files located at the Resource Area Offices show site-specific range condition delineations.

Thirty-seven out of the 318 AMP allotments have range in poor condition. Fourteen of these allotments have greater than 10% of their total acreage in poor range condition. Approximately 1% (37,462 acres) of the acreage within AMP allotments is in poor condition. Appendix 6 in the DES provides range condition classes for each allotment by vegetation type.

#14. Commentator (24) - Why wasn't a new range survey conducted? We believe the range has improved considerably since 1964.

Response - A new range survey was not conducted because the existing survey information was reasonable and usable, with some adjustments on an allotment-by-allotment basis. We believe a new survey was not justified due to the additional cost and time needed to complete such an effort which would not provide a substantial benefit in terms of improved data.

#15. Commentator (24) - Why were livestock numbers on some AMPs with poor range condition not cut while numbers on other AMPs with good condition range cut?

Response - As discusssed on page A-6, adjustments were proposed as a result of (1) more refined delineation of allotment boundaries, (2) better characterization of wildlife requirements, (3) comparing actual grazing use with forage utilization, (4) suitability determination, and (5) recognition of errors in administrative records. Thus, there may be allotments with large amount of good condition that may be receiving a reduction for one of the above reasons, while another allotment with a majority of fair condition may not be receiving a reduction if it was felt that grazing management would take care of resource problems identified.

Alternatives

#16. Commentator (24) - Under the no action alternative, the DES assumes that the range will decline so that eventually no forage will be available for livestock or wildlife.

Response - The assumption was made in the DES that overall the available livestock forage would decrease nearly 5% from existing levels by the year 2000 if no changes in livestock numbers or grazing management occurred. This estimate of a slight decrease is based on three primary factors: (1) no revision of existing AMPs to correct deficiencies, (2) no adjustments in stocking rates would be implemented to more accurately balance available forage with livestock numbers, and (3) the harmful effects of continuous season-long grazing would remain in some allotments.

#17. Commentator (9) - Who is responsible for the four alternate plans?

Response - Section 102(C)(iii) of the National Environmental Policy Act (NEPA) requires the consideration of alternatives to the proposed action. The Bureau of Land Management developed the alternatives with the objective of sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public. The no action alternative is required by the Council on Environmental Quality regulations resulting from NEPA. The no livestock grazing alternative is presented to allow an analysis of the role livestock grazing plays in the ES area and to allow portrayal of the environmental and social consequences of termination of such activity. The last two alternatives portray different multiple use mixes which either reduce livestock use (Alternative C) or increase livestock use (Alternative D). These shifts in resource emphasis allow the public and the decisionmaker to see the social and environmental consequences of a range of options.

#18. Commentator (9) - "The way I see it, the Taylor Grazing Act - you have got rights on the public land and you have an alternative there of elimination (elimination of livestock from public lands). Where do you get that right?"

Response - The Taylor Grazing Act does not give anyone rights on public lands - it establishes a privilege (not a right) for qualified livestock operators to harvest forage with grazing animals, consistent with laws and regulations as established by the Secretary of the Interior. The elimination of grazing alternative is proper, in that the National Environmental Policy Act (NEPA) does not require ES alternatives to be legal.

#19. Commentator (12) - What would the management of the land be for if you took livestock off the public lands?

Response - The Bureau of Land Management manages public land on the basis of multiple use and sustained yield. The multiple use values enumerated in the Federal Land Policy and Management Act are recreation, range, timber, minerals, watershed, wildlife and fish, and natural, scenic, scientific, and historical values. The Bureau of Land Management would continue to manage the public lands for the foregoing values if livestock were removed.

#20. Commentator (17) - "In the alternative where all livestock grazing would be discontinued on public domain, public grazing lands, I think somewhere in that final draft there should not be an estimate but whatever you can do, as close as you can come, to how much it would cost to fence those pieces out."

Response - Approximately 8,900 miles of fence would be necessary to exclude livestock from public lands. At an estimated cost of $1,000 per mile for fence, the approximate cost would be $8,900,000.

#21. Commentator (25) - The alternatives are not realistic or usable.

Response - As discussed in responses to comments #17 and #18, the no action alternative is required by CEQ regulations and the elimination of livestock alternative is used for analytical purposes. Although neither the reduced livestock use alternative nor the livestock forage maximization alternative is likely to be chosen in total as a preferred alternative, the decisionmaker has the option, based on the analysis in Chapter 8 of the DES, to use portions of the alternatives in his final decision. Thus, the last two alternatives provide valuable and usable input into the decisionmaking process.

General

#22. Commentators (11) (17) (18) - Were all livestock operators and other interested parties sent copies of the DES as notified of the public meetings? More people should have been made aware of the DES and its comments.

Response - Nearly 750 copies of the DES were sent to agencies, organizations, and individuals. Copies of the DES were sent to all livestock operators with existing, revised, or proposed allotment management plans. An insert in each DES gave the time and location for the public meetings. A news release discussing the DES and the times and locations for the public meetings was provided to all Montana daily and weekly newspapers, television stations, and radio stations two and one-half weeks before the meetings occurred.

#23. Commentators (2) (6) (17) (25) (27)- How will the AMPs along the Charles M. Russell National Wildlife Refuge be implemented? There is no fence between the Refuge and adjacent BLM lands and many ranchers have livestock operations which utilize range within the refuge and on adjacent BLM lands. How can you justify spending money on AMPs along the refuge boundary when planning for the refuge is not complete?

Response - Allotment management plans along the Charles M. Russell National Wildlife Refuge boundary will not be implemented without close coordination with the affected livestock operators and the U.S. Fish and Wildlife Service. Where specific resource objectives are compatible on the refuge and adjacent BLM lands, cooperative grazing management will be sought. Where specific resource objectives between the two agencies differ, allotment management plans will be implemented only when it has been determined by BLM that such action will not waste dollars or manpower or foreclose future options for cooperation with the Fish and Wildlife Service. Because of different management philosophies between the two agencies (single purpose emphasis for the Fish and Wildlfe Service and multiple use for BLM) it may be necessary to physically separate the two jurisdictions in selected areas. The management plan for the refuge is scheduled for completion in mid-1980. When the refuge management plan is complete and specific management goals are identified by area on the refuge, cooperation between the two agencies can more fully occur.

The above paragraph should be inserted in the DES between the two paragraphs under Fish and Wildlife Service on page 1-27. (See Part 2.)

#24. Commentator (2) - "I don't see anything mentioned about fire protection. I think there should be excess trails into spots where you can do something about fire when we get it. When you get a lot of grass and we got a lot of public you are going to get some fires."

Response - The current BLM fire suppression program utilizes a helitack approach. Two helicopters, one at Lewistown and the other at Zortman, are stationed on 24-hour call during the fire season to transport a seasonal crew of fire fighters to make the initial attack on fires. The central fire management officer is involved in planning and overseeing the fire management plan. Included in the plan is mapping of all access routes into the Missouri Breaks ES area. A seasonal fire dispatcher directs the attack under the fire management officer's guidance.

A fire retardant bomber is stationed at Lewistown and an additional bomber will be placed at Miles City beginning with the 1979 fire season. These bombers are available for additional support to the fire fighting crews dispatched in helicopters to fire outbreaks.

Four-wheel drive tankers also are available for backup. These tankers would be dispatched along access trails into the fire area.

The helitack program then involves primary fire attack through firefighters transported by helicopters to the fire site. Backup is supplied by fire retardant bombers. Additional followup involves ground tankers based on four-wheel drive vehicles dispatched along access trails to the fire area.

Also see response to comment #155.

#25. Commentator (9) - How does the Management Framework Plan apply to the DES?

Response - The Management Framework Plan (MFP) provided the multiple use foundation for the grazing management program. The general resource allocation decisions shown in Table 1-3 guided development of the AMPs and the proposed action. A more complete discussion of the AMP and its relationship to the proposed action is provided in the section, Management Guidance and Resource Coordination (including Figure 1-1, Map 1-2, and Table 1-3) on pages 1-4 through 1-8 of the DES.

#26. Commentator (13) - "When your final determination is made then when do you reassess on what? An annual basis or --?"

Response - Monitoring of the effects of an improved grazing management program would occur continuously. AMPs would be evaluated on a yearly basis and carefully reviewed after each complete cycle of the grazing system.

#27. Commentators (15) (16) (17) - Why are the characteristics of private lands described in the DES? That is not the government's concern.

Response - The environmental consequences or impacts of the proposed action are not limited to only public lands. In order to analyze impacts and present the decisionmaker with an adequate evaluation of the consequences of various options, it is necessary to consider the characteristics of private land as well as public land. A decision based only on an analysis of public lands would ignore important, often crucial, impact considerations.

#28. Commentator (19) - "How many more of these (ESs) are there in the state like this one?"

Response - Seven grazing management environmental statements (in addition to the Missouri Breaks) are scheduled for completion in Montana by the end of 1985.

#29. Commentator (20) - "I would like to know how the final decision on what is done or what action is going to be taken is arrived at and who does it."

Response - The final decision on what action will be taken will be made by the BLM District Manager with the concurrence of the State Director. After the final environmental statement is filed with the Environmental Protection Agency, the involved District Manager will recommend a course of action based on public comments and concerns, budget and manpower constraints, the environmental impacts portrayed in the environmental statement, legislative mandates, and BLM policy. The decision, and the rationale for it, will be presented within one year after filing of the final ES and documented in the Rangeland Management Program Document, a brief summary document which will be distributed to all interested parties.

#30. Commentator (15) - "There should not be any more wilderness designated in this area now or in the future."

Response - The Bureau of Land Management is required by Section 603 of the Federal Land Policy and Management Act to inventory and identify those public lands having wilderness characteristics as defined in the Wilderness Act. This inventory must be complete by October 21, 1991.

#31. Commentator (15) - "Who is going to keep all the fences up?"

Response - Fences built primarily for livestock management included in allotment management plans would generally be maintained by the licensee or permittee through maintenance agreements. When a maintenance agreement is not in effect, the fences are maintained by the Bureau of Land Management.

#32. Commentator (15) - "It seems that in the draft EIS they covered about everything that was none of their concern but failed to mention the adverse impact that the people going to and from public lands have on us landowners."

Response - The purpose of the environmental statement is to analyze the environmental consequences of an improved grazing management program, not to analyze the effects of non-livestock related actions such as recreational access. Abuses on private lands such as trespassing, littering, leaving gates open, and livestock harassment, must be dealt with by continued cooperation between the private landowner and the federal and state agencies involved with the management of public land resources.

#33. Commentator (21) - "I really think that that ought to be put right in the front end of that final draft of what this thing cost or somebody will see or anybody that reads it and - and who - who caused it when it cost that much."

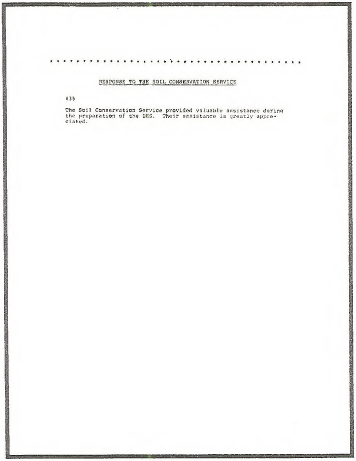
Response - The approximate cost of preparing and printing the Missouri Breaks Environmental Statement is $350,000. The environmental statement is required by Section 102(c) of the National Environmental Policy Act passed by the United States Congress in 1969.

#34. Commentator (28) - Has the bentonite mining which is occurring in south Valley County been taken into consideration in any of your plans?

Response - Within that portion of the ES area in Valley County, there is no current bentonite mining activity. While Federal Bentonite Company has submitted an application for bentonite mining development north of the ES area, no applications have been submitted for lands within the Missouri Breaks ES area.

Response to Letters

Each letter received during the review period is presented in full with a response, where appropriate, following each letter. Each comment has been numbered. The response to each comment follows with corresponding number. Comment numbering begins at 35 to follow the numbering of the public meeting comments. The letters are presented in the order they were received.



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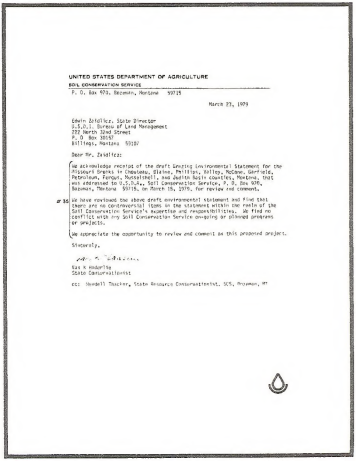
RESPONSE TO THE SOIL CONSERVATION SERVICE

#35

The Soil Conservation Service provided valuable assistance during the preparation of the DES. Their assistance is greatly appreciated.



UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
P. O. Box 970, Bozeman, Montana 59715

March 23, 1979

Edwin Zaidlicz, State Director
U.S.D.I. Bureau of Land Management
222 North 32nd Street
P. O Box 30157
Billings, Montana 59107

Dear Mr. Zaidlicz:

We acknowledge receipt of the draft Grazing Environmental Statement for the Missouri Breaks in Chouteau, Blaine, Phillips, Valley, McCone, Garfield, Petroloum, Fergus, Musselshell, and Judith Basin counties, Montana, that was addressed to U.S.D.A., Soil Conservation Service, P. O. Box 970, Bozeman, Montana 59715, on March 15, 1979, for review and comment.

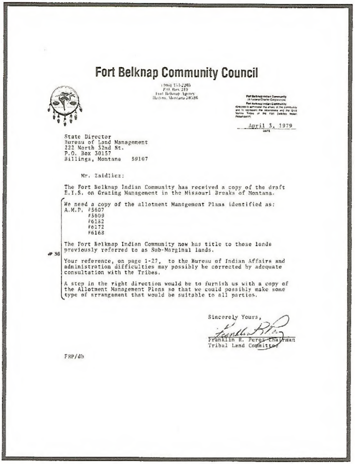
# 35 We have reviewed the above draft environmental statement and find that there are no controversial items in the statment within the realm of the Soil Conservation Service's expertise and responsibilities. We find no conflict with any Soil Conservation Service on-going or planned programs or projects.

We appreciate the opportunity to review and comment on this proposed project.

Sincerely,

Van K Haderlie
State Conservationist

cc: Wendell Thacker, State Resource Conservationist, SCS, Bozeman, MT



Fort Belknap Community Council

(406) 353-2205
P.O. Box 249
Fort Belknap Agency
Harlem, Montana 59526

Fort Belknap Indian Community
(A Federal Charter Corporation)
Fort Belknap Indian Community
(Elected to administer the affairs of the community and to represent the Assiniboine and the Gros Ventre Tribes of the Fort Belknap Indian Reservation)

April 3, 1979
DATE

State Director
Bureau of Land Management
222 North 32nd St.
P.O. Box 30157
Billings, Montana 59107

Mr. Zaidlicz:

The Fort Belknap Indian Community has received a copy of the draft E.I.S. on Grazing Management in the Missouri Breaks of Montana.

We need a copy of the allotment Management Plans identified as:
A.M.P. #5607
#5609
#6182
#6172
#6168

36 The Fort Belknap Indian Community now has title to those lands previously referred to as Sub-Marginal lands.

Your reference, on page 1-27, to the Bureau of Indian Affairs and administration difficulties may possibly be corrected by adequate consultation with the Tribes.

A step in the right direction would be to furnish us with a copy of the Allotment Management Plans so that we could possibly make some type of arrangement that would be suitable to all parties.

Sincerely Yours,

Franklin R. Perez-Chairman
Tribal Land Committee

FRP/db

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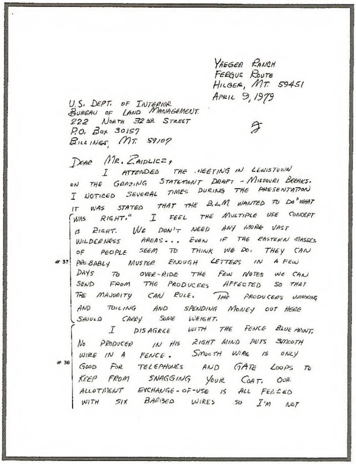
RESPONSE TO THE FORT BELKNAP COMMUNITY COUNCIL

#36

Coordination efforts between BLM and the Fort Belknap Community Council have been initiated. No actions will be taken which effect tribal lands without consultation with the Tribal Council.

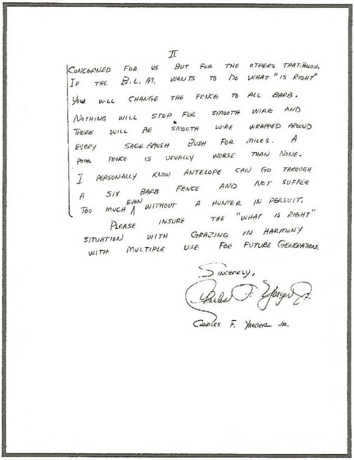


YAEGER RANCH
FERGUS ROUTE
HILGER, MT. 59451
APRIL 9, 1979

U.S. DEPT. OF INTERIOR
BUREAU OF LAND MANAGEMENT.
222 NORTH 32ND STREET
P.O. BOX 30157
BILLINGS, MT. 59107

DEAR MR. ZAIDLICZ,
I ATTENDED THE MEETING IN LEWISTOWN
ON THE GRAZING STATEMENT DRAFT - MISSOURI BREAKS.
I NOTICED SEVERAL TIMES DURING THE PRESENTATION
IT WAS STATED THAT THE B.L.M WANTED TO DO "WHAT
WAS RIGHT." I FEEL THE MULTIPLE USE CONCEPT
IS RIGHT. WE DON'T NEED ANY MORE VAST
WILDERNESS AREAS... EVEN IF THE EASTERN MASSES
OF PEOPLE SEEM TO THINK WE DO. THEY CAN
37 PROBABLY MUSTER ENOUGH LETTERS IN A FEW
DAYS TO OVER-RIDE THE FEW NOTES WE CAN
SEND FROM THE PRODUCERS AFFECTED SO THAT
THE MAJORITY CAN RULE. THE PRODUCERS WORKING
AND TOILING AND SPENDING MONEY OUT HERE
SHOULD CARRY SOME WEIGHT.

I DISAGREE WITH THE FENCE BLUE PRINT.
NO PRODUCER IN HIS RIGHT MIND PUTS SMOOTH
WIRE IN A FENCE. SMOOTH WIRE IS ONLY
38 GOOD FOR TELEPHONES AND GATE LOOPS TO
KEEP FROM SNAGGING YOUR COAT. OUR
ALLOTMENT EXCHANGE-OF-USE IS ALL FENCED
WITH SIX BARBED WIRES SO I'M NOT



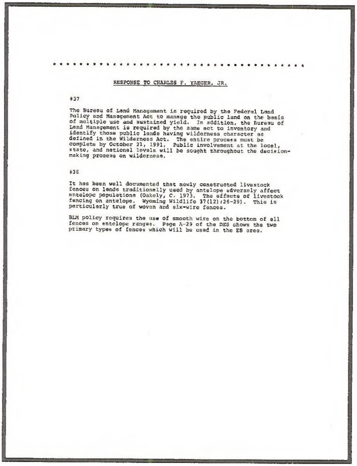
II

CONCERNED FOR US BUT FOR THE OTHERS THAT FOLLOW.
IF THE B.L.M. WANTS TO DO WHAT "IS RIGHT"
YOU WILL CHANGE THE FENCE TO ALL BARB.
NOTHING WILL STOP FOR SMOOTH WIRE AND
THERE WILL BE SMOOTH WIRE WRAPPED AROUND
EVERY SAGE BRUSH BUSH FOR MILES. A
POOR FENCE IS USUALLY WORSE THAN NONE.
I PERSONALLY KNOW ANTELOPE CAN GO THROUGH
A SIX BARB FENCE AND NOT SUFFER
TOO MUCH EVEN WITHOUT A HUNTER IN PERSUIT.
PLEASE INSURE THE "WHAT IS RIGHT"
SITUATION WITH GRAZING IN HARMONY
WITH MULTIPLE USE FOR FUTURE GENERATIONS.

SINCERELY,

Charles F. Yaeger Jr.

CHARLES F. YAEGER JR.



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RESPONSE TO CHARLES F. YAEGER, JR.

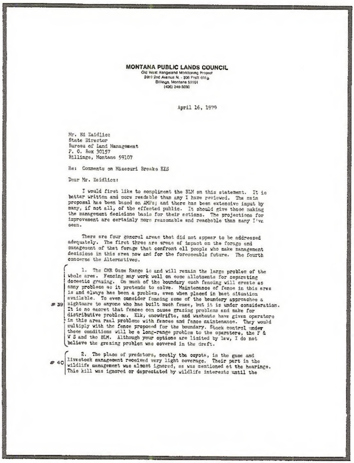
#37

The Bureau of Land Management is required by the Federal Land Policy and Management Act to manage the public land on the basis of multiple use and sustained yield. In addition, the Bureau of Land Management is required by the same act to inventory and identify those public lands having wilderness character as defined in the Wilderness Act. The entire process must be complete by October 21, 1991. Public involvement at the local, state, and national levels will be sought throughout the decision-making process on wilderness.

#38

It has been well documented that newly constructed livestock fences on lands traditionally used by antelope adversely affect antelope populations (Oakely, C. 1973. The effects of livestock fencing on antelope. Wyoming Wildlife 37(12):26-29). This is particularly true of woven and six-wire fences.

BLM policy requires the use of smooth wire on the bottom of all fences on antelope ranges. Page A-29 of the DES shows the two primary types of fences which will be used in the ES area.



MONTANA PUBLIC LANDS COUNCIL
Old West Rangeland Monitoring Project
2819 2nd Avenue N. - 306 Fratt Bldg.
Billings, Montana 59101
(406) 248-3030

April 16, 1979

Mr. Ed Zaidlicz
State Director
Bureau of Land Management
P. O. Box 30157
Billings, Montana 59107

Re: Comments on Missouri Breaks EIS

Dear Mr. Zaidlicz:

I would first like to compliment the BLM on this statement. It is better written and more readable than any I have reviewed. The main proposal has been based on AMPs; and there has been extensive input by many, if not all, of the effected public. It should give those making the management decisions basis for their actions. The projections for improvement are certainly more reasonable and reachable than many I've seen.

There are four general areas that did not appear to be addressed adequately. The first three are areas of impact on the forage and management of that forage that confront all people who make management decisions in this area now and for the foreseeable future. The fourth concerns the Alternatives.

# 39 1. The CMR Game Range is and will remain the large problem of the whole area. Fencing may work well on some allotments for separating domestic grazing. On much of the boundary such fencing will create as many problems as it pretends to solve. Maintenance of fence in this area is and always has been a problem, even when placed in best situation available. To even consider fencing some of the boundary approaches a nightmare to anyone who has built much fence, but it is under consideration. It is no secret that fences can cause grazing problems and make for distributive problems. Elk, snowdrifts, and washouts have given operators in this area real problems with fences and fence maintenance. They would multiply with the fence proposed for the boundary. Stock control under these conditions will be a long-range problem to the operators, the F & W S and the BLM. Although your options are limited by law, I do not believe the grazing problem was covered in the draft.

# 40 2. The place of predators, mostly the coyote, in the game and livestock management received very light coverage. Their part in the wildlife management was almost ignored, as was mentioned at the hearings. This kill was ignored or depreciated by wildlife interests until the

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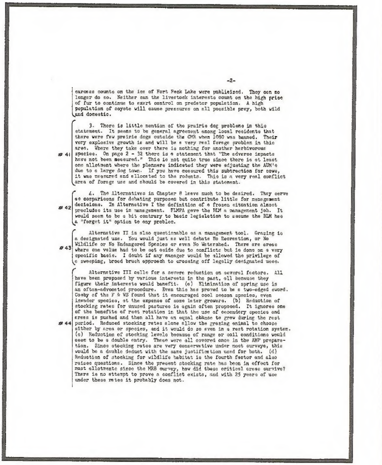


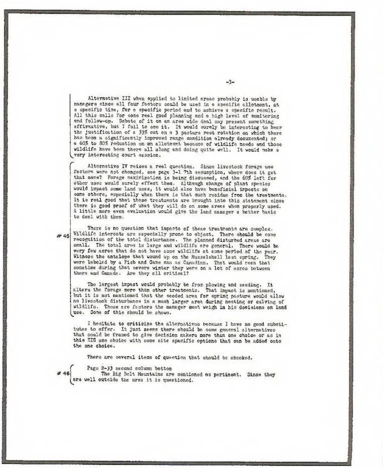
carcass counts on the ice of Fort Peck Lake were publicized. They can no longer do so. Neither can the livestock interests count on the high price of fur to continue to exert control on predator population. A high population of coyote will cause pressures on all possible prey, both wild and domestic.

# 41 3. There is little mention of the prairie dog problems in this statement. It seems to be general agreement among local residents that there were few prairie dogs outside the CMR when 1080 was banned. Their very explosive growth is and will be a very real forage problem in this area. Where they take over there is nothing for another herbivorous species. On page 2 - 32 there is a statement that "The adverse impacts have not been measured." This is not quite true since there is at least one allotment where the planners indicated they were adjusting the AUM's due to a large dog town. If you have measured this subtraction for cows, it was measured and allocated to the rodents. This is a very real conflict area of forage use and should be covered in this statement.

# 42 4. The Alternatives in Chapter 8 leave much to be desired. They serve as comparisons for debating purposes but contribute little for management decisions. In Alternative I the definition of a frozen situation almost precludes its use in management. FLMPA gave the BLM a management job. It would seem to be a bit contrary to basic legislation to assume the BLM has a "forget it" option to any problem.

# 43 Alternative II is also questionable as a management tool. Grazing is a designated use. You would just as well debate No Recreation, or No Wildlife or No Endangered Species or even No Watershed. There are areas where one value had to be set aside due to conflicts but is done on a very specific basis. I doubt if any manager would be allowed the privilege of a sweeping, broad brush approach to crossing off legally designated uses.

# 44 Alternative III calls for a severe reduction on several factors. All have been proposed by various interests in the past, all because they figure their interests would benefit. (a) Elimination of spring use is an often-advocated procedure. Even this has proved to be a two-edged sword. Cosby of the F & WS found that it encouraged cool season species, even invader species, at the expense of some later growers. (b) Reduction of stocking rates for unused pastures is again often proposed. It ignores one of the benefits of rest rotation in that the use of secondary species and areas is pushed and then all have an equal chance to grow during the rest period. Reduced stocking rates alone allow the grazing animal to choose either by area or species, and it would do so even in a rest rotation system. (c) Reduction of stocking levels because of range or soil conditions would seem to be a double entry. These were all covered once in the AMP preparation. Since stocking rates are very conservative under most surveys, this would be a double deduct with the same justification used for both. (d) Reduction of stocking for wildlife habitat is the fourth factor and also raises questions. Since the present stocking rate has been in effect for most allotments since the MRB survey, how did these critical areas survive? There is no attempt to prove a conflict exists, and with 25 years of use under these rates it probably does not.



Alternative III when applied to limited areas probably is usable by managers since all four factors could be used in a specific allotment, at a specific time, for a specific period and to achieve a specific result. All this calls for some real good planning and a high level of monitoring and follow-up. Debate of it on an area wide deal may present something affirmative, but I fail to see it. It would surely be interesting to hear the justification of a 33% cut on a 3 pasture rest rotation on which there has been a significantly improved range condition already documented; or a 60% to 80% reduction on an allotment because of wildlife needs and those wildlife have been there all along and doing quite well. It would make a very interesting court session.

Alternative IV raises a real question. Since livestock forage use factors were not changed, see page 3-1 7th assumption, where does it get that name? Forage maximization is being discussed, and the 60% left for other uses would surely effect them. Although change of plant species would impact some land uses, it would also have beneficial impacts on some others, especially when there is that much residue from the treatments. It is real good that these treatments are brought into this statement since there is good proof of what they will do on some areas when properly used. A little more even evaluation would give the land manager a better basis to deal with them.

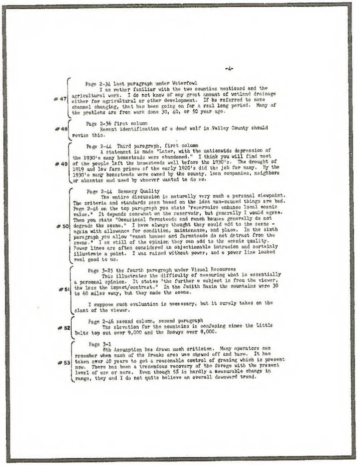
# 45 There is no question that impacts of these treatments are complex. Wildlife interests are especially prone to object. There should be some recognition of the total disturbance. The planned disturbed areas are small. The total area is large and wildlife are general. There would be very few acres that do not have some wildlife at some period of the year. Witness the antelope that wound up on the Musselshell last spring. They were labeled by a Fish and Game man as Canadinn. That would mean that sometime during that severe winter they were on a lot of acres between there and Canada. Are they all critical?

The largest impact would probably be from plowing and seeding. It alters the forage more than other treatments. That impact is mentioned, but it is not mentioned that the seeded area for spring pasture would allow no livestock disturbance in a much larger area during nesting or calving of wildlife. Those are factors the manager must weigh in his decisions on land use. Some of this should be shown.

I hesitate to criticize the alternatives because I have no good substitutes to offer. It just seems there should be some general alternatives that could be framed to give decision makers more than one choice or as in this EIS one choice with some site specific options that can be added onto the one choice.

There are several items of question that should be checked.

# 46 Page 2-33 second column bottom
The Big Belt Mountains are mentioned as pertinent. Since they are well outside the area it is questioned.



47 Page 2-34 last paragraph under Waterfowl

I am rather familiar with the two counties mentioned and the agricultural work. I do not know of any great amount of wetland drainage either for agricultural or other development. If he referred to some channel changing, that has been going on for a real long period. Many of the problems are from work done 30, 40, or 50 year ago.

48 Page 2-36 first column

Recent identification of a dead wolf in Valley County should revise this.

49 Page 2-44 Third paragraph, first column

A statement is made "Later, with the nationwide depression of the 1930's many homesteads were abandoned." I think you will find most of the people left the homesteads well before the 1930's. The drought of 1919 and low farm prices of the early 1920's did the job for many. By the 1930's many homesteads were owned by the county, loan companies, neighbors or absentee and used by whoever wanted to do so.

50 Page 2-44 Scenery Quality

The entire discussion is naturally very much a personal viewpoint. The criteria and standards seem based on the idea man-caused things are bad. Page 2-46 on the top paragraph you state "reservoirs enhance local scenic value." It depends somewhat on the reservoir, but generally I would agree. Then you state "Occasional farmsteads and ranch houses generally do not degrade the scene." I have always thought they could add to the scene - again with allowance for condition, maintenance, and place. In the sixth paragraph you allow "ranch houses and farmsteads do not detract from the scene." I am still of the opinion they can add to the scenic quality. Power lines are often considered an objectionable intrusion and certainly illustrate a point. I was raised without power, and a power line looked real good to us.

51 Page 3-25 the fourth paragraph under Visual Resources

This illustrates the difficulty of measuring what is essentially a personal opinion. It states "the further a subject is from the viewer, the less the impact/contrast." In the Judith Basin the mountains were 30 to 60 miles away, but they made the scene.

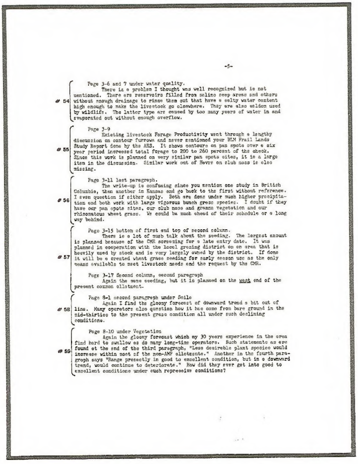
I suppose such evaluation is necessary, but it surely takes on the slant of the viewer.

52 Page 2-46 second column, second paragraph

The elevation for the mountains is confusing since the Little Belts top out over 9,000 and the Snowys over 8,000.

53 Page 3-1

8th Assumption has drawn much criticism. Many operators can remember when much of the Breaks area was chewed off and bare. It has taken over 40 years to get a reasonable control of grazing which is present now. There has been a tremendous recovery of the forage with the present level of use or more. Even though 5% is hardly a measurable change in range, they and I do not quite believe an overall downward trend.



54 Page 3-6 and 7 under water quality.

There is a problem I thought was well recognized but is not mentioned. There are reservoirs filled from saline seep areas and others without enough drainage to rinse them out that have a salty water content high enough to make the livestock go elsewhere. They are also seldom used by wildlife. The latter type are caused by too many years of water in and evaporated out without enough overflow.

55 Page 3-9

Existing livestock Forage Productivity went through a lengthy discussion on contour furrows and never mentioned your BLM Frail Lands Study Report done by the ARS. It shows contours on pan spots over a six year period increased total forage to 200 to 260 percent of the check. Since this work is planned on very similar pan spots sites, it is a large item in the discussion. Similar work out of Havre on club moss is also missing.

56 Page 3-11 last paragraph.

The write-up is confusing since you mention one study in British Columbia, then another in Kansas and go back to the first without reference. I even question if either apply. Both are done under much higher precipitation and both work with large vigorous bunch grass species. I doubt if they have our pan spots sites, our club moss and gramma vegetation and our rhizomatous wheat grass. We could be much ahead of their schedule or a long way behind.

57 Page 3-15 bottom of first and top of second column.

There is a lot of mush talk about the seeding. The largest amount is planned because of the CMR screaming for a late entry date. It was planned in cooperation with the local grazing district on an area that is heavily used by stock and is very largely owned by the district. If done it will be a crested wheat grass seeding for early season use as the only means available to meet livestock needs and the request by the CMR.

Page 3-17 Second column, second paragraph

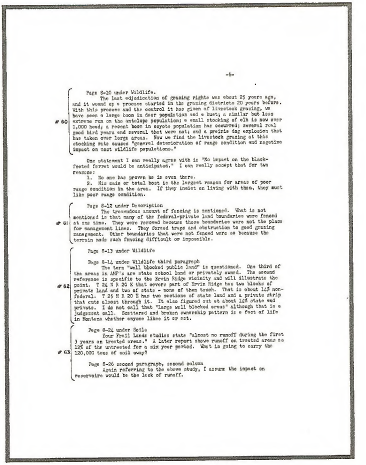
Again the same seeding, but it is planned on the west end of the present common allotment.

58 Page 8-1 second paragraph under Soils

Again I find the gloomy forecast of downward trend a bit out of line. Many operators also question how it has come from bare ground in the mid-thirties to the present grass condition all under such declining conditions.

59 Page 8-10 under Vegetation

Again the gloomy forecast which my 30 years experience in the area find hard to swallow as do many long-time operators. Such statements as are found at the end of the third paragraph, "Less desirable plant species would increase within most of the non-AMP allotments." Another in the fourth paragraph says "Range presently in good to excellent condition, but in a downward trend, would continue to deteriorate." How did they ever get into good to excellent conditions under such repressive conditions?



60 Page 8-10 under Wildlife.

The last adjudication of grazing rights was about 25 years ago, and it wound up a process started in the grazing districts 20 years before. With this process and the control it has given of livestock grazing, we have seen a large boom in deer population and a bust; a similar but less extreme run on the antelope population; a small stocking of elk is now over 1,000 head; a recent boom in coyote population has occurred; several real good bird years and several that were not; and a prairie dog explosion that has taken over large areas. Now we find the livestock grazing at this stocking rate causes "general deterioration of range condition and negative impact on most wildlife populations."

One statement I can really agree with is "No impact on the black-footed ferret would be anticipated." I can really accept that for two reasons:

1. No one has proven he is even there.
2. His main or total host is the largest reason for areas of poor range condition in the area. If they insist on living with them, they must like poor range condition.

61 Page 8-12 under Description

The tremendous amount of fencing is mentioned. What is not mentioned is that many of the federal-private land boundaries were fenced at one time. They were removed because those boundaries were not the place for management lines. They formed traps and obstruction to good grazing management. Other boundaries that were not fenced were so because the terrain made such fencing difficult or impossible.

62 Page 8-13 under Wildlife

Page 8-14 under Wildlife third paragraph

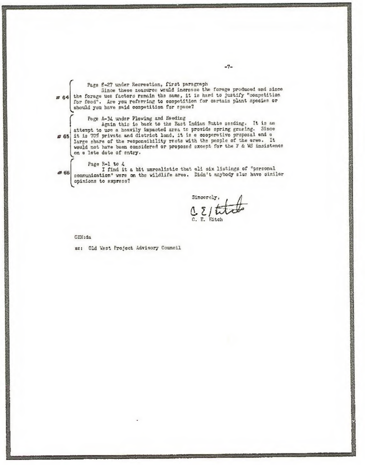
The term "well blocked public land" is questioned. One third of the areas in AMP's are state school land or privately owned. The second reference is specific to the Ervin Ridge vicinity and will illustrate the point. T 24 N R 20 E that covers part of Ervin Ridge has two blocks of private land and two of state - none of them touch. That is about 14% non-federal. T 25 N R 20 E has two sections of state land and a private strip that cuts almost through it. It also figured out at about 14% state and private. I do not call that "large well blocked areas" although that is a judgement call. Scattered and broken ownership pattern is a fact of life in Montana whether anyone likes it or not.

63 Page 8-24 under Soils

Your Frail Lands studies state "almost no runoff during the first 3 years on treated areas." A later report shows runoff on treated areas as 12% of the untreated for a six year period. What is going to carry the 120,000 tons of soil away?

Page 8-26 second paragraph, second column

Again referring to the above study, I assume the impact on reservoirs would be the lack of runoff.



64 Page 8-27 under Recreation, first paragraph

Since these measures would increase the forage produced and since the forage use factors remain the same, it is hard to justify "competition for food". Are you referring to competition for certain plant species or should you have said competition for space?

65 Page A-34 under Plowing and Seeding

Again this is back to the East Indian Butte seeding. It is an attempt to use a heavily impacted area to provide spring grazing. Since it is 70% private and district land, it is a cooperative proposal and a large share of the responsibility rests with the people of the area. It would not have been considered or proposed except for the F & WS insistence on a late date of entry.

66 Page R-1 to 4

I find it a bit unrealistic that all six listings of "personal communication" were on the wildlife area. Didn't anybody else have similar opinions to express?

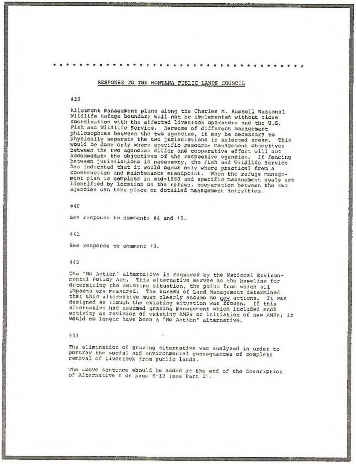
Sincerely,

C E Hitch

C. E. Hitch

CEH:da

xc: Old West Project Advisory Council



* * *

RESPONSE TO THE MONTANA PUBLIC LANDS COUNCIL

#39

Allotment management plans along the Charles M. Russell National Wildlife Refuge boundary will not be implemented without close coordination with the affected livestock operators and the U.S. Fish and Wildlife Service. Because of different management philosophies between the two agencies, it may be necessary to physically separate the two jurisdictions in selected areas. This would be done only where specific resource management objectives between the two agencies differ and cooperative effort will not accommodate the objectives of the respective agencies. If fencing between jurisdictions is necessary, the Fish and Wildlife Service has indicated that it would occur only where practical from a construction and maintenance standpoint. When the refuge management plan is complete in mid-1980 and specific management goals are identified by location on the refuge, cooperation between the two agencies can take place on detailed management activities.

#40

See response to comments #4 and #5.

#41

See response to comment #3.

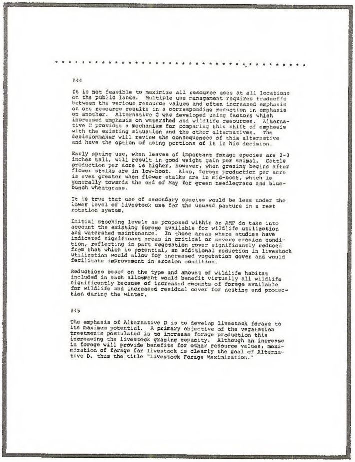
#42

The "No Action" alternative is required by the National Environmental Policy Act. This alternative serves as the baseline for determining the existing situation, the point from which all impacts are measured. The Bureau of Land Management determined that this alternative must clearly assume no new actions. It was designed as though the existing situation was frozen. If this alternative had assumed grazing management which included such activity as revision of existing AMPs or initiation of new AMPs, it would no longer have been a "No Action" alternative.

#43

The elimination of grazing alternative was analyzed in order to portray the social and environmental consequences of complete removal of livestock from public lands.

The above sentence should be added at the end of the description of Alternative B on page 8-12 (see Part 2).



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#44

It is not feasible to maximize all resource uses at all locations on the public lands. Multiple use management requires tradeoffs between the various resource values and often increased emphasis on one resource results in a corresponding reduction in emphasis on another. Alternative C was developed using factors which increased emphasis on watershed and wildlife resources. Alternative C provides a mechanism for comparing this shift of emphasis with the existing situation and the other alternatives. The decisionmaker will review the consequences of this alternative and have the option of using portions of it in his decision.

Early spring use, when leaves of important forage species are 2-3 inches tall, will result in good weight gain per animal. Cattle production per acre is higher, however, when grazing begins after flower stalks are in low-boot. Also, forage production per acre is even greater when flower stalks are in mid-boot, which is generally towards the end of May for green needlegrass and bluebunch wheatgrass.

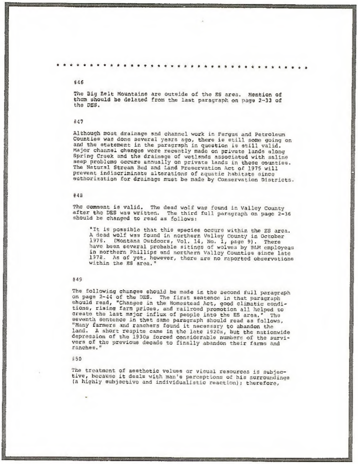
It is true that use of secondary species would be less under the lower level of livestock use for the unused pasture in a rest rotation system.

Initial stocking levels as proposed within an AMP do take into account the existing forage available for wildlife utilization and watershed maintenance. In those areas where studies have indicated significant areas in critical or severe erosion condition, reflecting in part vegetation cover significantly reduced from that which is potential, an additional reduction in livestock utilization would allow for increased vegetation cover and would facilitate improvement in erosion condition.

Reductions based on the type and amount of wildlife habitat included in each allotment would benefit virtually all wildlife significantly because of increased amounts of forage available for wildlife and increased residual cover for nesting and protection during the winter.

#45

The emphasis of Alternative D is to develop livestock forage to its maximum potential. A primary objective of the vegetation treatments postulated is to increase forage production thus increasing the livestock grazing capacity. Although an increase in forage will provide benefits for other resource values, maximization of forage for livestock is clearly the goal of Alternative D, thus the title "Livestock Forage Maximization."



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#46

The Big Belt Mountains are outside of the ES area. Mention of them should be deleted from the last paragraph on page 2-33 of the DES.

#47

Although most drainage and channel work in Fergus and Petroleum Counties was done several years ago, there is still some going on and the statement in the paragraph in question is still valid. Major channel changes were recently made on private lands along Spring Creek and the drainage of wetlands associated with saline seep problems occurs annually on private lands in these counties. The Natural Stream Bed and Land Preservation Act of 1975 will prevent indiscriminate alterations of aquatic habitats since authorization for drainage must be made by Conservation Districts.

#48

The comment is valid. The dead wolf was found in Valley County after the DES was written. The third full paragraph on page 2-36 should be changed to read as follows:

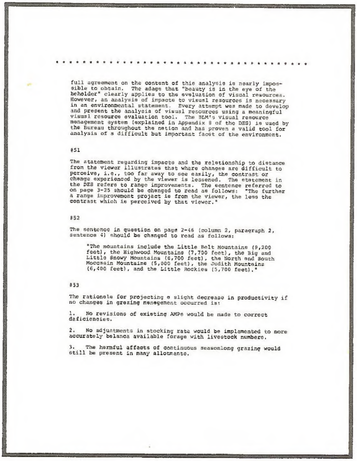
> "It is possible that this species occurs within the ES area. A dead wolf was found in northern Valley County in October 1978. (Montana Outdoors, Vol. 14, No. 1, page 9). There have been several probable sitings of wolves by BLM employees in northern Phillips and northern Valley Counties since late 1978. As of yet, however, there are no reported observations within the ES area."

#49

The following changes should be made in the second full paragraph on page 2-44 of the DES. The first sentence in that paragraph should read, "Changes in the Homestead Act, good climatic conditions, rising farm prices, and railroad promotion all helped to create the last major influx of people into the ES area." The seventh sentence in that same paragraph should read as follows, "Many farmers and ranchers found it necessary to abandon the land. A short respite came in the late 1920s, but the nationwide depression of the 1930s forced considerable numbers of the survivors of the previous decade to finally abandon their farms and ranches."

#50

The treatment of aesthetic values or visual resources is subjective, because it deals with man's perceptions of his surroundings (a highly subjective and individualistic reaction); therefore, full agreement on the content of this analysis is nearly impossible to obtain. The adage that "beauty is in the eye of the beholder" clearly applies to the evaluation of visual resources. However, an analysis of impacts to visual resources is necessary in an environmental statement. Every attempt was made to develop and present the analysis of visual resources using a meaningful visual resource evaluation tool. The BLM's visual resource management system (explained in Appendix 8 of the DES) is used by the Bureau throughout the nation and has proven a valid tool for analysis of a difficult but important facet of the environment.



* * *

#51

The statement regarding impacts and the relationship to distance from the viewer illustrates that where changes are difficult to perceive, i.e., too far away to see easily, the contrast or change experienced by the viewer is lessened. The statement in the DES refers to range improvements. The sentence referred to on page 3-25 should be changed to read as follows: "The further a range improvement project is from the viewer, the less the contrast which is perceived by that viewer."

#52

The sentence in question on page 2-46 (column 2, paragraph 2, sentence 4) should be changed to read as follows:

> "The mountains include the Little Belt Mountains (9,200 feet), the Highwood Mountains (7,700 feet), the Big and Little Snowy Mountains (8,700 feet), the North and South Moccasin Mountains (5,000 feet), the Judith Mountains (6,400 feet), and the Little Rockies (5,700 feet)."

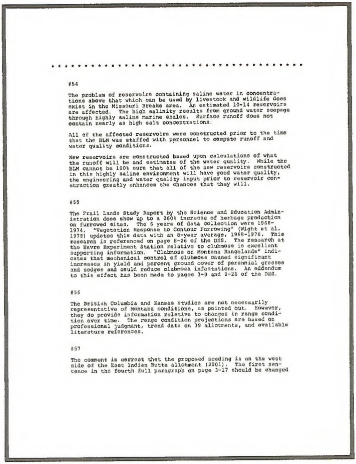
#53

The rationale for projecting a slight decrease in productivity if no changes in grazing management occurred is:

1. No revisions of existing AMPs would be made to correct deficiencies.

2. No adjustments in stocking rate would be implemented to more accurately balance available forage with livestock numbers.

3. The harmful effects of continuous seasonlong grazing would still be present in many allotments.



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#54

The problem of reservoirs containing saline water in concentrations above that which can be used by livestock and wildlife does exist in the Missouri Breaks area. An estimated 10-14 reservoirs are affected. The high salinity results from ground water seepage through highly saline marine shales. Surface runoff does not contain nearly as high salt concentrations.

All of the affected reservoirs were constructed prior to the time that the BLM was staffed with personnel to compute runoff and water quality conditions.

New reservoirs are constructed based upon calculations of what the runoff will be and estimates of the water quality. While the BLM cannot be 100% sure that all of the new reservoirs constructed in this highly saline environment will have good water quality, the engineering and water quality input prior to reservoir construction greatly enhances the chances that they will.

#55

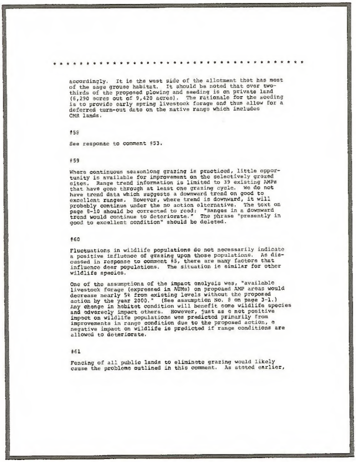
The Frail Lands Study Report by the Science and Education Administration does show up to a 260% increase of herbage production on furrowed sites. The 6 years of data collection were 1968-1974. "Vegetation Response to Contour Furrowing" (Wight et al. 1978) updates this data with an 8-year average, 1968-1976. This research is referenced on page 8-26 of the DES. The research at the Havre Experiment Station relative to clubmoss is excellent supporting information. "Clubmoss on Montana Rangelands" indicates that mechanical control of clubmoss caused significant increases in yield and percent ground cover of perennial grasses and sedges and could reduce clubmoss infestations. An addendum to this effect has been made to pages 3-9 and 8-26 of the DES.

#56

The British Columbia and Kansas studies are not necessarily representative of Montana conditions, as pointed out. However, they do provide information relative to changes in range condition over time. The range condition projections are based on professional judgment, trend data on 39 allotments, and available literature references.

#57

The comment is correct that the proposed seeding is on the west side of the East Indian Butte allotment (2001). The first sentence in the fourth full paragraph on page 3-17 should be changed



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accordingly. It is the west side of the allotment that has most of the sage grouse habitat. It should be noted that over two-thirds of the proposed plowing and seeding is on private land (6,290 acres out of 9,420 acres). The rationale for the seeding is to provide early spring livestock forage and thus allow for a deferred turn-out date on the native range which includes CMR lands.

#58

See response to comment #53.

#59

Where continuous seasonlong grazing is practiced, little opportunity is available for improvement on the selectively grazed sites. Range trend information is limited to 39 existing AMPs that have gone through at least one grazing cycle. We do not have trend data which suggests a downward trend on good to excellent ranges. However, where trend is downward, it will probably continue under the no action alternative. The text on page 8-10 should be corrected to read: "Ranges in a downward trend would continue to deteriorate." The phrase "presently in good to excellent condition" should be deleted.

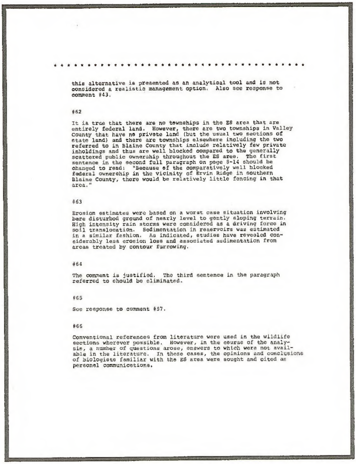
#60

Fluctuations in wildlife populations do not necessarily indicate a positive influence of grazing upon those populations. As discussed in response to comment #5, there are many factors that influence deer populations. The situation is similar for other wildlife species.

One of the assumptions of the impact analysis was, "available livestock forage (expressed in AUMs) on proposed AMP areas would decrease nearly 5% from existing levels without the proposed action by the year 2000." (See assumption No. 8 on page 3-1.) Any change in habitat condition will benefit some wildlife species and adversely impact others. However, just as a net positive impact on wildlife populations was predicted primarily from improvements in range condition due to the proposed action, a negative impact on wildlife is predicted if range conditions are allowed to deteriorate.

#61

Fencing of all public lands to eliminate grazing would likely cause the problems outlined in this comment. As stated earlier,



* *

this alternative is presented as an analytical tool and is not considered a realistic management option. Also see response to comment #43.

#62

It is true that there are no townships in the ES area that are entirely federal land. However, there are two townships in Valley County that have no private land (but the usual two sections of state land) and there are townships elsewhere including the two referred to in Blaine County that include relatively few private inholdings and thus are well blocked compared to the generally scattered public ownership throughout the ES area. The first sentence in the second full paragraph on page 8-14 should be changed to read: "Because of the comparatively well blocked federal ownership in the vicinity of Ervin Ridge in southern Blaine County, there would be relatively little fencing in that area."

#63

Erosion estimates were based on a worst case situation involving bare disturbed ground of nearly level to gently sloping terrain. High intensity rain storms were considered as a driving force in soil translocation. Sedimentation in reservoirs was estimated in a similar fashion. As indicated, studies have revealed considerably less erosion loss and associated sedimentation from areas treated by contour furrowing.

#64

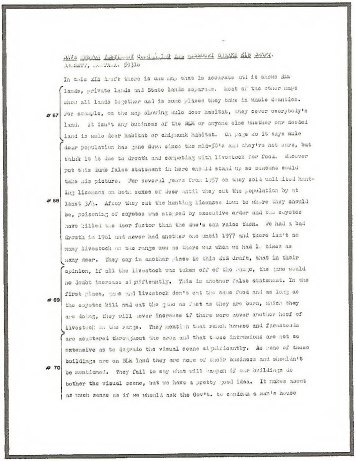
The comment is justified. The third sentence in the paragraph referred to should be eliminated.

#65

See response to comment #57.

#66

Conventional references from literature were used in the wildlife sections wherever possible. However, in the course of the analysis, a number of questions arose, answers to which were not available in the literature. In these cases, the opinions and conclusions of biologists familiar with the ES area were sought and cited as personal communications.



DAVE HUSTON TESTIMONY CONCERNING THE MISSOURI BREAKS EIS DRAFT.
[illegible], MONTANA 59316

In this EIS draft there is one map that is accurate and it shows BLM
lands, private lands and State lands separate. Most of the other maps
show all lands together and is some places they take in whole Counties.
#67 For example, on the map showing mule deer habitat, they cover everybody's
land. It isn't any business of the BLM or anyone else whether our deeded
land is mule deer habitat or chipmunk habitat. On page 20 it says mule
deer population has gone down since the mid-50's and they're not sure, but
think it is due to drouth and competing with livestock for food. Whoever
put this dumb false statement in here should stand up so someone could
take his picture. For several years from 1957 on they sold unlimited hunt-
ing licenses on both sexes of deer until they cut the population by at
#68 least 3/4. After they cut the hunting licenses down to where they should
be, poisoning of coyotes was stopped by executive order and the coyotes
have killed the deer faster than the doe's can raise them. We had a bad
drouth in 1961 and never had another one until 1977 and there isn't as
many livestock on the range now as there was when we had 1½ times as
many deer. They say in another place in this EIS draft, that in their
opinion, if all the livestock was taken off of the range, the game would
no doubt increase significantly. This is another false statement. In the
first place, game and livestock don't eat the same food and as long as
#69 the coyotes kill and eat the game as fast as they are born, which they
are doing, they will never increase if there were never another hoof of
livestock on the range. They mention that ranch houses and farmsteads
are scattered throughout the area and that these intrusions are not so
extensive as to degrade the visual scene significantly. As none of these
buildings are on BLM land they are none of their business and shouldn't
#70 be mentioned. They fail to say what will happen if our buildings do
bother the visual scene, but we have a pretty good idea. It makes about
as much sense as if we should ask the Gov't. to condemn a man's house

--------2---------

in town because his house keeps us from seeing a dog fight in the alley behind his house. There should not be any more wilderness designated

#71 in this area now or in the future. Don't take one acre out of production to make play grounds for dead beats. They mention how much money we make

#72 and spend and how much impact that has on the local economy. We didn't know that the amount of money we make was anybody's business but ours and the IRS. They figured our net income----not our gross. We make plenty of money but we don't get to keep hardly any of it. It is all of that money that we have to spend that helps the local economy. This was done intentionally to make it look like the public could get along without us local land owners real easy. This should be changed so this thing would look a little honest. We realize that due to the BLM coming out second best in a law suit with the Communists, they were forced to make these EIS, but we don't think they were forced to misrepresent some things within and we doubt that the BLM was forced to include local people's private land and their buildings or how much money they make and spend. After all this isn't supposed to be Russia yet. It seems that in this draft EIS they covered about everything that was none of their concern but failed

#73 to mention the adverse impact that the people going to and from public lands have on us local land owners. We have to follow them through and shut gates they leave open. We have to pick up their empty beer cans and pop bottles and during the hunting season we have to mend the fences they cut. Since the Dept. of Int. can't get them onto public land without them crossing someone's private land, this impact should be mentioned. Also,

#74 the fact that almost every year the local stockmen have to go to some hearing to defend themselves against one branch or other of the Dept. of Int. They seem to prefer to have these meetings in the Spring in bad weather and when everyone is busy calving or lambing so as few as possible will show up to defend themselves. The impact this is having should also be mentioned. If the BLM can't make an environmental impact statement

* *

RESPONSE TO DAVE HUSTON

#67

In order to analyze impacts and present the decisionmaker with an adequate evaluation of the consequences of various options, it is necessary to consider the characteristics of private as well as public land. It is not BLM's intention to place additional government restrictions on all private land in the ES area. However, BLM must analyze the effects of its actions on man's total environment. Also see response to comment #27.

#68

See response to comment #5.

#69

The wildlife analysis of the no grazing alternative on page 8-13 of the DES states, "In the short term (emphasis added) following implementation of this alternative, many species of wildlife would benefit from increased vegetation diversity and available forage." In areas where the public land is scattered in small parcels, there would be long-term benefits to wildlife due to the mosaic of diverse habitat that would be created. However, if cattle were removed from relatively large blocks of public land, "vegetational succession would proceed toward climax types that are sub-optimal for many wildlife species . . . The net result would be population levels for most species slightly or moderately above current levels (emphasis added) but considerably below the levels possible when grazing is designed to meet wildlife needs." Several references that support this analysis are cited on page 8-20.

#70

See response to comments #50 and #67.

#71

The BLM is required by Section 603 of the Federal Land Policy and Management Act to inventory and identify those public lands having wilderness characteristics as defined in the Wilderness Act. The entire process must be complete by October 21, 1991.

--------3---------

with a lot more truth, a lot more common sense, a little decency and a lot more respect shown for the local stockmen that are producing food and fiber for this Nation than they have in this one, then the Nation would be better off if all of the impact statements such as this one be taken to those outdoor priveys and used the same way the old Montgomery Ward catalogs were used.

Thank You.

* *

#72

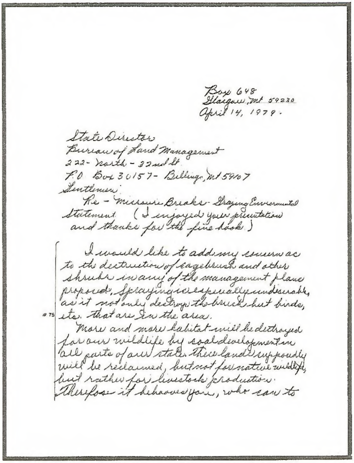
The economic impact analysis was based on gross rather than net livestock income figures. Also see response to comment #11. We believe that knowledge of the economic losses or gains resulting from implementation of the proposed action or alternatives is a critical element in the decisionmaking process. The economic analysis was based on countywide income figures and does not present confidential personal income data.

#73

See response to comment #32.

#74

Public meetings are a critical component of the public involvement process. Because of tight time schedules for completion of the ES and the need for sufficient advance notice of the meetings, the available meeting dates fell during a period of poor weather when many ranchers were calving or lambing. However, when attendance at the meetings was not possible, all interested parties had an opportunity to comment in writing during a 52-day public comment period.



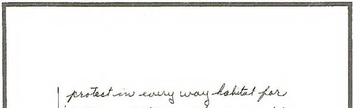
Box 648
Glasgow, Mt 59230
April 14, 1979.

State Director
Bureau of Land Management
222- North - 32nd St
P.O Box 30157- Billings, Mt 59107
Gentlemen:

Re - Missouri Breaks - Grazing Environmental Statement (I enjoyed your presentation and thanks for the fine book.)

#75 I would like to add my concern as to the destruction of sagebrush and other shrubs in any of the management plans proposed. Spraying is especially undesirable, as it not only destroys the brush but birds, etc. that are in the area.

More and more habitat will be destroyed for our wildlife by coal development in all parts of our state. These lands supposedly will be reclaimed, but not for native wildlife, but rather for livestock production. Therefore it behooves you, who can to



protect in every way habitat for native wildlife as they are crowded away from their orginal grounds.

As you know sagebrush is a deep rooted plant and in extreme drought conditions, which will come again, provide food for deer, birds, etc. Livestock caught in early storms before roundup time are found in this area also.

A better form of sagebrush control then spraying, is cultivation, ripping in strips and leaving strips of sagebrush and of grass. We did this on our ranch years ago and it became a favorite pasture for the cattle, and was the home of many grouse and sagehens. Antelope always had something when they showed up in the winter.

Best wishes and thanks.
Sincerely,
Irene R. Baker.

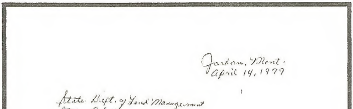
Public lands should be for more than just the livestock producers. They can learn to live like the rest of us over the years - good and bad.

* *

RESPONSE TO IRENE R. BAKER

#75

Your concern about sagebrush control is well stated. See response to comment #1.



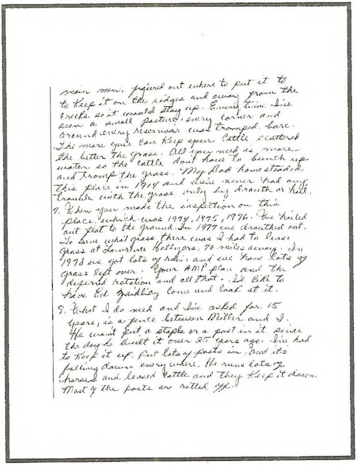
Jordan, Mont.
April 14, 1979

State Dept. of Land Management
State Director
Billings, Mont.

Dear Sir:

I want to send in my statement of the things I do not agree with in your Missouri River Breaks Grazing Environmental Statement;

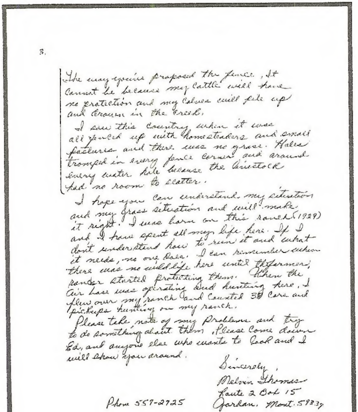
1. The Coyote was never mentioned. He is killing off your deer population.
2. You sold two deer tags to each hunter for years which decreased your deer population.
#76 3. If it wasn't for the farmer, rancher, there would be no deer, because we feed them all winter and they graze our fields in the summer. There would never have been any deer to start with if the farmer, rancher hadn't protected them.
4. Our livestock does not hurt the deer population.
5. On my grazing permit! You have me turning my cattle out later than anyone in the book, May 16th. By the time they have been on my alfalfa and grain fields this long, I won't have any feed to winter on.
#77 6. The way you have the fence proposed to chop up my pastures, will not work. The way the gumbo rough hills lay, the snow will squash the fences down and the creeks wash them out. When this was fenced to start with, Leroy Kielman, one of your



main men, figured out where to put it to to Keep it on the ridges and away from the creeks so it would stay up. Every time I've seen a small pasture, every corner and around every reservoir was tromped bare. The more you can Keep your Cattle scattered the better the grass. All you need is more water so the cattle don't have to bunch up and tromp the grass. My Dad homesteaded this place in 1914 and we've never had any trouble with the grass only by drouth or hail.

7. When you made the inspection on this place, which was 1974, 1975, 1976. We hailed out flat to the ground. In 1977 we drouthed out. To save what grass there was I had to lease grass at Lawrence Kolleyers, 76 miles away. In 1978 we got lots of rain and we have lots of grass left over. Your AMP plan and the deferred rotation and all that. I'd like to have Ed Zaidlicz Come and look at it.

8. What I do need and I've asked for 15 years, is a fence between Miller and I. He won't put a staple or a post in it since the day he built it over 25 years ago. I've had to Keep it up. Put lots of posts in, and it's falling down everywhere. He runs lots of horses and leased cattle and they Keep it down. Most of the posts are rotted off.



3.

The way you've proposed the fence, It Cannot be because my cattle will have no protection and my Calves will pile up and drown in the creek.

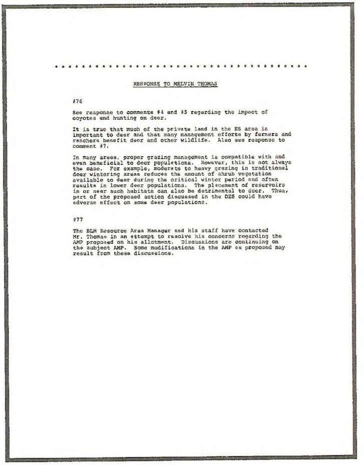
I saw this country when it was all fenced up with homesteaders and small pastures and there was no grass. Holes tromped in every fence corner and around every water hole because the livestock had no room to scatter.

I hope you can understand my situation and my grass situation and will make it right. I was born on this ranch (1929) and I have spent all my life here. If I don't understand how to run it and what it needs, no one does. I can remember when there was no wildlife here until the farmers, rancher started protecting them. When the Air base was operating and hunting here, I flew over my ranch and Counted 38 Cars and pickups hunting on my ranch.

Please take note of my problems and try to do something about them. Please Come down Ed, and anyone else who wants to look and I will show you around.

Sincerely,
Melvin Thomas
Route 2 Box 15
Jordan, Mont. 59337

Phone 557-2725



* *

RESPONSE TO MELVIN THOMAS

#76

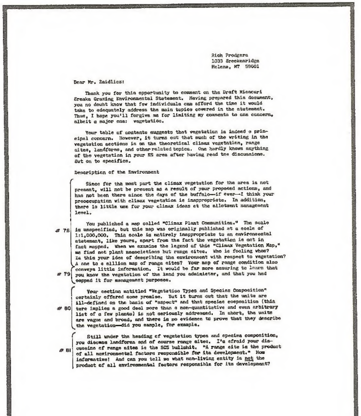
See response to comments #4 and #5 regarding the impact of coyotes and hunting on deer.

It is true that much of the private land in the ES area is important to deer and that many management efforts by farmers and ranchers benefit deer and other wildlife. Also see response to comment #7.

In many areas, proper grazing management is compatible with and even beneficial to deer populations. However, this is not always the case. For example, moderate to heavy grazing in traditional deer wintering areas reduces the amount of shrub vegetation available to deer during the critical winter period and often results in lower deer populations. The placement of reservoirs in or near such habitats can also be detrimental to deer. Thus, part of the proposed action discussed in the DES could have adverse effect on some deer populations.

#77

The BLM Resource Area Manager and his staff have contacted Mr. Thomas in an attempt to resolve his concerns regarding the AMP proposed on his allotment. Discussions are continuing on the subject AMP. Some modifications in the AMP as proposed may result from these discussions.



Rich Prodgers
1033 Breckenridge
Helena, MT 59601

Dear Mr. Zaidlicz:

Thank you for this opportunity to comment on the Draft Missouri Breaks Grazing Environmental Statement. Having prepared this document, you no doubt know that few individuals can afford the time it would take to adequately address the main topics covered in the statement. Thus, I hope you'll forgive me for limiting my comments to one concern, albeit a major one: vegetation.

Your table of contents suggests that vegetation is indeed a principal concern. However, it turns out that much of the writing in the vegetation sections is on the theoretical climax vegetation, range sites, landforms, and other related topics. One hardly knows anything of the vegetation in your ES area after having read the discussions. But on to specifics.

Description of the Environment

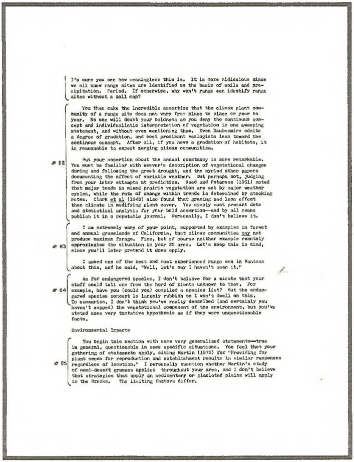
Since for the most part the climax vegetation for the area is not present, will not be present as a result of your proposed actions, and has not been there since the days of the buffalo—if ever—I think your preoccupation with climax vegetation is inappropriate. In addition, there is little use for your climax ideas at the allotment management level.

78 You published a map called "Climax Plant Communities." The scale is unspecified, but this map was originally published at a scale of 1:1,000,000. This scale is entirely inappropriate to an environmental statement, like yours, apart from the fact the vegetation is not in fact mapped. When we examine the legend of this "Climax Vegetation Map," we find not plant associations but range sites. Who is fooling whom? Is this your idea of describing the environment with respect to vegetation? A one to a million map of range sites?

79 Your map of range condition also conveys little information. It would be far more assuring to learn that you know the vegetation of the land you administer, and that you had mapped it for management purposes.

80 Your section entitled "Vegetation Types and Species Composition" certainly offered some promise. But it turns out that the units are ill-defined on the basis of "aspect" and that species composition (this term implies a good deal more than a non-quantitative and even arbitrary list of a few plants) is not seriously addressed. In short, the units are vague and broad, and there is no evidence to prove that they describe the vegetation—did you sample, for example.

81 Still under the heading of vegetation types and species composition, you discuss landforms and of course range sites. I'm afraid your discussion of range sites is the SCS bullshit. "A range site is the product of all environmental factors responsible for its development." How informative! And can you tell me what non-living entity is not the product of all environmental factors responsible for its development?



I'm sure you see how meaningless this is. It is more ridiculous since we all know range sites are identified on the basis of soils and precipitation. Period. If otherwise, why won't range men identify range sites without a soil map?

# 82 You then make the incredible assertion that the climax plant community of a range site does not vary from place to place or year to year. No one will doubt your boldness as you deny the continuum concept and individualistic interpretation of vegetation in one sweeping statement, and without even mentioning them. Even Daubenmire admits a degree of gradation, and most prominent ecologists lean toward the continuum concept. After all, if you have a gradation of habitats, it is reasonable to expect merging climax communities.

But your assertion about the annual constancy is more remarkable. You must be familiar with Weaver's description of vegetational changes during and following the great drought, and the myriad other papers documenting the effect of variable weather. But perhaps not, judging from your later attempts at prediction. Reed and Peterson (1961) noted that major tends in mixed prairie vegetation are set by major weather cycles, while the rate of change within trends is determined by stocking rates. Clark et al (1943) also found that grazing had less effect than climate in modifying plant cover. You simply must present data and statistical analysis for your bold assertion—and by all means publish it in a reputable journal. Personally, I don't believe it.

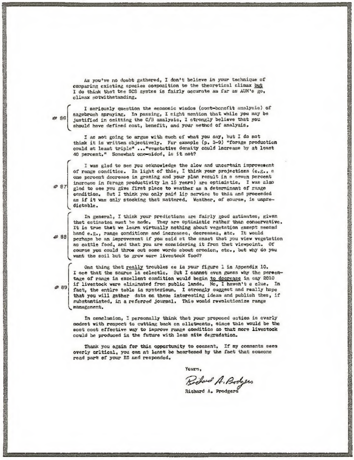
# 83 I am extremely wary of your point, supported by examples in forest and annual grasslands of California, that climax communities may not produce maximum forage. Fine, but of course neither example remotely approximates the situation in your ES area. Let's keep this in mind, since you'll later pretend it does apply.

I asked one of the best and most experienced range men in Montana about this, and he said, "Well, let's say I haven't seen it."

# 84 As for endangered species, I don't believe for a minute that your staff could tell one from the hord of plants unknown to them. For example, have you (could you) compiled a species list? But the endangered species concept is largely rubbish so I won't dwell on this. To summarize, I don't think you've really described (and certainly you haven't mapped) the vegetational component of the environment, but you've stated some very tentative hypothesis as if they were unquestionable facts.

Environmental Impacts

# 85 You begin this section with some very generalized statements—true in general, questionable in some specific situations. You feel that your gathering of statements apply, citing Martin (1975) for "Providing for plant needs for reproduction and establishment results in similar responses regardless of location." I personally question whether Martin's study of semi-desert grasses applies throughout your area, and I don't believe that strategies that apply on sedimentary or glaciated plains will apply in the Breaks. The limiting factors differ.



As you've no doubt gathered, I don't believe in your technique of comparing existing species composition to the theoretical climax but I do think that the SCS system is fairly accurate as far as AUM's go, climax notwithstanding.

# 86 I seriously question the economic wisdom (cost-benefit analysis) of sagebrush spraying. In passing, I might mention that while you may be justified in omitting the C/B analysis, I strongly believe that you should have defined cost, benefit, and your method of analysis.

I am not going to argue with much of what you say, but I do not think it is written objectively. For example (p. 3-9) "forage production could at least triple" ..."vegetative density could increase by at least 40 percent." Somewhat one-sided, is it not?

# 87 I was glad to see you acknowledge the slow and uncertain improvement of range condition. In light of this, I think your projections (e.g., a one percent decrease in grazing and your plan result in a seven percent increase in forage productivity in 15 years) are optimistic. I was also glad to see you give first place to weather as a determinant of range condition. But I think you only paid lip service to this and proceeded as if it was only stocking that mattered. Weather, of course, is unpredictable.

# 88 In general, I think your predictions are fairly good estimates, given that estimates must be made. They are optimistic rather than conservative. It is true that we learn virtually nothing about vegetation except second hand e.g., range conditions and increases, decreases, etc. It would perhaps be an improvement if you said at the onset that you view vegetation as cattle food, and that you are considering it from that viewpoint. Of course you could throw out some words about erosion, etc., but why do you want the soil but to grow more livestock food?

# 89 One thing that really troubles me is your figure 1 in Appendix 10. I see that the source is eclectic. But I cannot even guess why the percentage of range in excellent condition would begin to decrease in say 2010 if livestock were eliminated from public lands. No, I haven't a clue. In fact, the entire table is mysterious. I strongly suggest and really hope that you will gather data on these interesting ideas and publish them, if substantiated, in a referred journal. This would revolutionize range management.

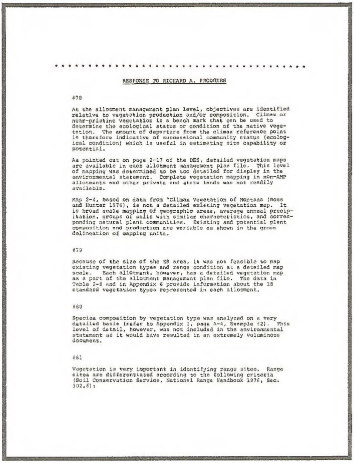
In conclusion, I personally think that your proposed action is overly modest with respect to cutting back on allotments, since this would be the most cost effective way to improve range condition so that more livestock could be produced in the future with less site degradation.

Thank you again for this opportunity to comment. If my comments seem overly critical, you can at least be heartened by the fact that someone read part of your ES and responded.

Yours,

Richard A. Prodgers

Richard A. Prodgers



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RESPONSE TO RICHARD A. PRODGERS

#78

At the allotment management plan level, objectives are identified relative to vegetation production and/or composition. Climax or near-pristine vegetation is a bench mark that can be used to determine the ecological status or condition of the native vegetation. The amount of departure from the climax reference point is therefore indicative of successional community status (ecological condition) which is useful in estimating site capability or potential.

As pointed out on page 2-17 of the DES, detailed vegetation maps are available in each allotment management plan file. This level of mapping was determined to be too detailed for display in the environmental statement. Complete vegetation mapping in non-AMP allotments and other private and state lands was not readily available.

Map 2-4, based on data from "Climax Vegetation of Montana (Ross and Hunter 1976), is not a detailed existing vegetation map. It is broad scale mapping of geographic areas, average annual precipitation, groups of soils with similar characteristics, and corresponding natural plant communities. Existing and potential plant composition and production are variable as shown in the gross delineation of mapping units.

#79

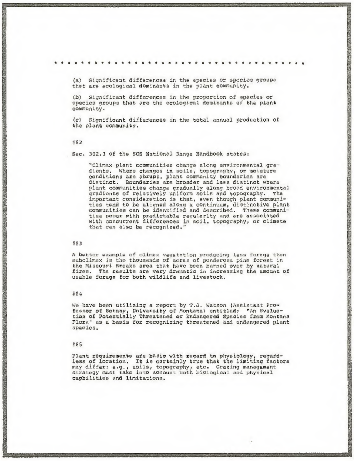
Because of the size of the ES area, it was not feasible to map existing vegetation types and range condition at a detailed map scale. Each allotment, however, has a detailed vegetation map as a part of the allotment management plan file. The data in Table 2-8 and in Appendix 6 provide information about the 18 standard vegetation types represented in each allotment.

#80

Species composition by vegetation type was analyzed on a very detailed basis (refer to Appendix 1, page A-4, Example #2). This level of detail, however, was not included in the environmental statement as it would have resulted in an extremely voluminous document.

#81

Vegetation is very important in identifying range sites. Range sites are differentiated according to the following criteria (Soil Conservation Service, National Range Handbook 1976, Sec. 302.6):



* *

(a) Significant differences in the species or species groups that are ecological dominants in the plant community.

(b) Significant differences in the proportion of species or species groups that are the ecological dominants of the plant community.

(c) Significant differences in the total annual production of the plant community.

#82

Sec. 302.3 of the SCS National Range Handbook states:

> "Climax plant communities change along environmental gradients. Where changes in soils, topography, or moisture conditions are abrupt, plant community boundaries are distinct. Boundaries are broader and less distinct where plant communities change gradually along broad environmental gradients of relatively uniform soils and topography. The important consideration is that, even though plant communities tend to be aligned along a continuum, distinctive plant communities can be identified and described. These communities occur with predictable regularity and are associated with concurrent differences in soil, topography, or climate that can also be recognized."

#83

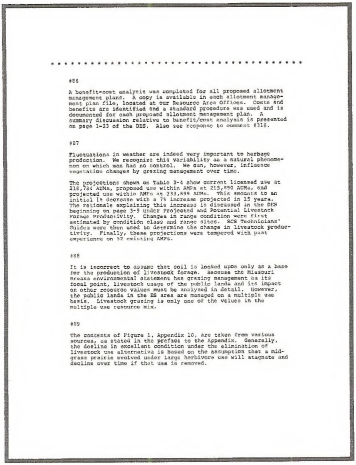
A better example of climax vegetation producing less forage than subclimax is the thousands of acres of ponderosa pine forest in the Missouri Breaks area that have been burned over by natural fires. The results are very dramatic in increasing the amount of usable forage for both wildlife and livestock.

#84

We have been utilizing a report by T.J. Watson (Assistant Professor of Botany, University of Montana) entitled: "An Evaluation of Potentially Threatened or Endangered Species from Montana Flora" as a basis for recognizing threatened and endangered plant species.

#85

Plant requirements are basic with regard to physiology, regardless of location. It is certainly true that the limiting factors may differ; e.g., soils, topography, etc. Grazing management strategy must take into account both biological and physical capbilities and limitations.



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#86

A benefit-cost analysis was completed for all proposed allotment management plans. A copy is available in each allotment management plan file, located at our Resource Area Offices. Costs and benefits are identified and a standard procedure was used and is documented for each proposed allotment management plan. A summary discussion relative to benefit/cost analysis is presented on page 1-23 of the DES. Also see response to comment #318.

#87

Fluctuations in weather are indeed very important to herbage production. We recognize this variability as a natural phenomenon on which man has no control. We can, however, influence vegetation changes by grazing management over time.

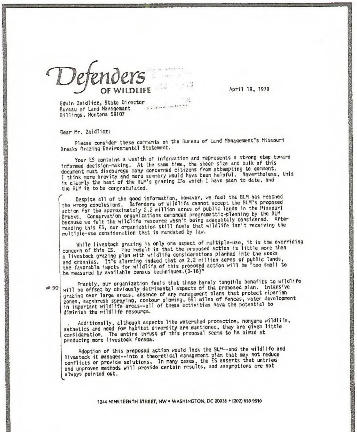
The projections shown on Table 3-4 show current licensed use at 218,784 AUMs, proposed use within AMPs at 215,890 AUMs, and projected use within AMPs at 233,899 AUMs. This amounts to an initial 1% decrease with a 7% increase projected in 15 years. The rationale explaining this increase is discussed in the DES beginning on page 3-9 under Projected and Potential Livestock Forage Productivity. Changes in range condition were first estimated by condition class and range sites. SCS Technicians' Guides were then used to determine the change in livestock productivity. Finally, these projections were tempered with past experience on 52 existing AMPs.

#88

It is incorrect to assume that soil is looked upon only as a base for the production of livestock forage. Because the Missouri Breaks environmental statement has grazing management as its focal point, livestock usage of the public lands and its impact on other resource values must be analyzed in detail. However, the public lands in the ES area are managed on a multiple use basis. Livestock grazing is only one of the values in the multiple use resource mix.

#89

The contents of Figure 1, Appendix 10, are taken from various sources, as stated in the preface to the Appendix. Generally, the decline in excellent condition under the elimination of livestock use alternative is based on the assumption that a midgrass prairie evolved under large herbivore use will stagnate and decline over time if that use is removed.



Defenders
OF WILDLIFE

April 19, 1979

Edwin Zaidlicz, State Director
Bureau of Land Management
Billings, Montana 59107

Dear Mr. Zaidlicz:

Please consider these comments on the Bureau of Land Management's Missouri Breaks Grazing Environmental Statement.

Your ES contains a wealth of information and represents a strong step toward informed decision-making. At the same time, the sheer size and bulk of this document must discourage many concerned citizens from attempting to comment. I think more brevity and more summary would have been helpful. Nevertheless, this is clearly the best of the BLM's grazing ESs which I have seen to date, and the BLM is to be congratulated.

90 Despite all of the good information, however, we feel the BLM has reached the wrong conclusions. Defenders of Wildlife cannot accept the BLM's proposed action for the approximately 2.2 million acres of public lands in the Missouri Breaks. Conservation organizations demanded programattic-planning by the BLM because we felt the wildlife resource wasn't being adequately considered. After reading this ES, our organization still feels that wildlife isn't receiving the multiple-use consideration that is mandated by law.

While livestock grazing is only one aspect of multiple-use, it is the overriding concern of this ES. The result is that the proposed action is little more than a livestock grazing plan with wildlife considerations planned into the nooks and crannies. It's alarming indeed that on 2.2 million acres of public lands, the favorable impcts for wildlife of this proposed action will be "too small to be measured by available census techniques.(3-16)"

Frankly, our organization feels that these barely tangible benefits to wildlife will be offset by obviously detrimental aspects of the proposed plan. Intensive grazing over large areas, absence of any management plans that protect riparian zones, sagebrush spraying, contour plowing, 551 miles of fences, water development in important wildlife areas--all of these activities have the potential to diminish the wildlife resource.

Additionally, although aspects like watershed protection, nongame wildlife, aethetics and need for habitat diversity are mentioned, they are given little consideration. The entire thrust of this proposal seems to be aimed at producing more livestock forage.

Adoption of this proposed action would lock the BLM--and the wildlife and livestock it manages--into a theoretical management plan that may not reduce conflicts or provide solutions. In many cases, the ES asserts that untried and unproven methods will provide certain results, and assumptions are not always pointed out.

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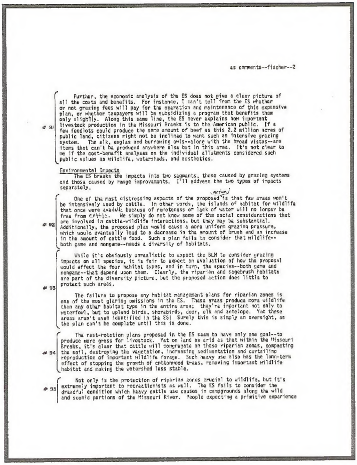


91 Further, the economic analysis of the ES does not give a clear picture of all the costs and benefits. For instance, I can't tell from the ES whether or not grazing fees will pay for the operation and maintenance of this expensive plan, or whether taxpayers will be subsidizing a program that benefits them only slightly. Along this same line, the ES never explains how important livestock production in the Missouri Breaks is to the American public. If a few feedlots could produce the same amount of beef as this 2.2 million acres of public land, citizens might not be inclined to want such an intensive grazing system. The elk, eagles and burrowing owls--along with the broad vistas--are items that can't be produced anywhere else but in this area. It's not clear to me if the cost-benefit analyses on the individual allotments considered such public values as wildlife, watersheds, and aesthetics.

Environmental Impacts

The ES breaks the impacts into two segments, those caused by grazing systems and those caused by range improvements. I'll address the two types of impacts separately.

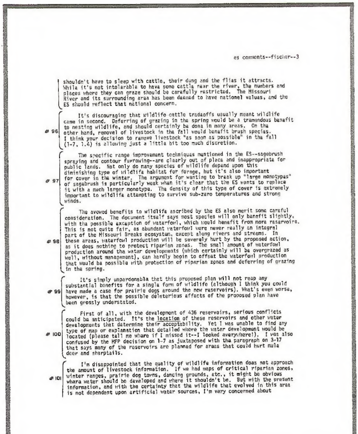
92 One of the most distressing aspects of the proposed action is that few areas won't be intensively used by cattle. In other words, the islands of habitat for wildlife that once were available because of remoteness or lack of water will no longer be free from cattle. We simply do not know some of the social considerations that are involved in cattle-wildlife interactions, but they may be substantial. Additionally, the proposed plan would cause a more uniform grazing pressure, which would eventually lead to a decrease in the amount of brush and an increase in the amount of cattle food. Such a plan fails to consider that wildlife--both game and nongame--needs a diversity of habitats.

93 While it's obviously unrealistic to expect the BLM to consider grazing impacts on all species, it is fair to expect an evaluation of how the proposal would effect the four habitat types, and in turn, the species--both game and nongame--that depend upon them. Clearly, the riparian and sagebrush habitats are part of the diversity picture, but the proposed action does little to protect such areas.

The failure to propose any habitat management plans for riparian zones is one of the most glaring omissions in the ES. These areas produce more wildlife than any other habitat type in the entire area; they're important not only to waterfowl, but to upland birds, shorebirds, deer, elk and antelope. Yet these areas aren't even identified in the ES! Surely this is simply an oversight, as the plan can't be complete until this is done.

94 The rest-rotation plans proposed in the ES seem to have only one goal--to produce more grass for livestock. Yet on land as arid as that within the Missouri Breaks, it's clear that cattle will congregate on these riparian zones, compacting the soil, destroying the vegetation, increasing sedimentation and curtailing reproduction of important wildlife forage. Such heavy use also has the long-term effect of stopping the growth of cottonwood trees, removing important wildlife habitat and making the watershed less stable.

95 Not only is the protection of riparian zones crucial to wildlife, but it's extremely important to recreationists as well. The ES fails to consider the dreadful condition which heavy cattle use causes in campgrounds along the wild and scenic portions of the Missouri River. People expecting a primitive experience



shouldn't have to sleep with cattle, their dung and the flies it attracts. While it's not intolerable to have some cattle near the river, the numbers and places where they can graze should be carefully restricted. The Missouri River and its surrounding area has been deemed to have national values, and the ES should reflect that national concern.

96 It's discouraging that wildlife cattle tradeoffs usually meant wildlife came in second. Deferring of grazing in the spring would be a tremendous benefit to nesting wildlife, and should certainly be done in many areas. On the other hand, removel of livestock in the fall would benefit brush species. I think your decision to remove livestock "as soon as possible" in the fall (1-7, 1.4) is allowing just a little bit too much discretion.

97 The specific range improvement techniques mentioned in the ES--sagebrush spraying and contour furrowing--are clearly out of place and inappropriate for public lands. Not only do many species of wildlife depend upon this diminishing type of wildlife habitat for forage, but it's also important for cover in the winter. The argument for wanting to break up "large monotypes" of sagebrush is particularly weak when it's clear that the ES wants to replace it with a much larger monotype. The density of this type of cover is extremely important to wildlife attempting to survive sub-zero temperatures and strong winds.

98 The avowed benefits to wildlife ascribed by the ES also merit some careful consideration. The document itself says most species will only benefit slightly, with the possible exception of waterfowl, which would benefit from more reservoirs. This is not quite fair, as abundant waterfowl were never really an integral part of the Missouri Breaks ecosystem, except along rivers and streams. In these areas, waterfowl production will be severely hurt by the proposed action, as it does nothing to protect riparian zones. The small amount of waterfowl production around the water developments (which certainly will be overgrazed as well, without management), can hardly begin to offset the waterfowl production that would be possible with protection of riparian zones and deferring of grazing in the spring.

99 It's simply unpardonable that this proposed plan will not reap any substantial benefits for a single form of wildlife (although I think you could have made a case for prairie dogs around the new reservoirs). What's even worse, however, is that the possible deleterious effects of the proposed plan have been grossly understated.

100 First of all, with the development of 436 reservoirs, serious conflicts could be anticipated. It's the location of these reservoirs and other water developments that determine their acceptability. Yet I was unable to find any type of map or explanation that detailed where the water development would be located (please tell me where if I missed it--I looked everywhere!). I was also confused by the MFP decision on 1-7 as juxtaposed with the paragraph on 3-17 that says many of the reservoirs are planned for areas that could hurt mule deer and sharptails.

101 I'm disappointed that the quality of wildlife information does not approach the amount of livestock information. If we had maps of critical riparian zones, winter ranges, prairie dog towns, dancing grounds, etc., it might be obvious where water should be developed and where it shouldn't be. But with the present information, and with the certainty that the wildlife that evolved in this area is not dependent upon artificial water sources, I'm very concerned about

such large-scale water development and the cursory environmental impact assessment it has received.

#102 Fencing is also a troublesome aspect of the proposed action. The ES calls for construction of 551 miles of fence, yet predicts only a "minor" negative impact on wildlife. This would seem to ignore some of the important findings regarding antelope mortality and fencing that have taken place on the Red Desert in Wyoming. The winter of 1978 made it clear that eastern Montana antelope will migrate long distances in response to cold weather and heavy snow. Even with 3-strand fences, the potential for high mortality is present, and this should be made clear in the ES. The 1978 Guidelines for Management of the Pronghorn Antelope (as published by the western states pronghorn antelope workshop committee) should be utilized for this.

#103 It's very surprising that the impacts of this proposed action on the Charles M. Russell National Wildlife Refuge aren't carefully considered. Certainly the impacts will be substantial, yet the ES adresses the problem as if a boundary fence were constructed. Even if a boundary fence were in place, the impacts on watersheds and wildlife also merit attention.

Further, it's difficult to comprehend why the BLM wants to establish such an intensive grazing system around the nation's second largest national wildlife refuge. The CMR and its wildlife have a national significance that the ES fails to acknowledge. Controversy will continue to surround these lands until the Bureau of Land Management and the Fish and Wildlife Service begin to work together.

Alternatives to the Proposed Action

#104 I'd like to commend the BLM for preparing at least one alternative to the proposed action that is carefully considered and well thought out; too many environmental impact statements offer no other choices than the proposed action that are really feasible. Alternative A (no action) is of course not acceptable, given declining range and watershed conditions. It is valuable to include it, however, as other alternatives can be measured against it. Alternative B (elimination of all livestock grazing on public lands) should not have been included in the ES; it's both inflammatory and against the law. Please inform me why it was included. Alternative D (Livestock Forage Maximization) is obviously unrealistic, and probably unlawful. Only Alternative C (Reduced Levels of Livestock Use) appears to be within the fair range of alternatives.

Defenders of Wildlife supports Alternative C. It's obviously the alternative that strikes a fair balance between livestock use, wildlife, recreation and watershed protection. In addition, it would help foster a more stable local economy as well as better range conditions. More than anything else, it's a multiple use alternative.

#105 There very well may be BLM lands in the United States where intensive livestock production should be emphasized. This area, however, containing as it does both the C.M. Russell National Wildlife Refuge and 149 miles of the wild and scenic Missouri River, does not lend itself to maximum resource development. This section of our nation deserves a much better fate than simply to be divided into so many cow pastures. I believe the BLM has seriously underestimated the national significance of the Missouri Breaks.

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* *

RESPONSE TO THE DEFENDERS OF WILDLIFE

#90

The proposed action was developed after an updating and revision of the management framework plans (MFPs). The MFPs analyzed the resource tradeoffs between livestock grazing and wildlife values (see Table 1-3 on pages 1-7 and 1-8 of the DES and the individual MFPs for each planning unit which are available for review at the Montana State Office of the BLM). It was determined that a multiple use mix which included more intensive management of livestock use would improve range condition and productivity, thus benefitting the range, wildlife, watershed, and recreation resources. We believe the multiple use mix on which the proposal for AMP implementation is based is an equitable allocation of resources.

Although the estimation of overall impacts to wildlife was admittedly subjective, the "barely tangible benefits" you refer to are considered to be net, taking into consideration the negative impacts from fencing, sagebrush spraying, etc. See response to comments #245 and #283. It should be pointed out that wildlife populations in the ES area are and have been reasonably diverse and healthy throughout many decades of livestock grazing.

Your observation that livestock grazing is the overriding concern in the ES is absolutely correct. The April 14, 1978, court order states:

> "Each EIS contemplated by this Order shall discuss in detail 'livestock grazing activities' and all reasonable alternatives thereto. 'Livestock grazing activities' as used in this Order shall mean all existing or proposed livestock grazing, all grazing use authorizations issued or contemplated to be issued by the BLM as well as those substantial activities which are supportive of and related to livestock grazing administered by the BLM, such as fencing, livestock water development, spraying, chaining, seeding, and brush removal. . ."

BLM is moving toward environmental statements on management framework plans in the future. However, this ES was structured to deal primarily with the livestock grazing management or AMP program. It is not the final decision. After a 30-day period following filing of the final environmental statement, a decision will be made relative to the range management program for the Missouri Breaks area. All available information including comments on the Draft Environmental Statement will be considered in making this final decision.

Thank you very much for the opportunity to comment on one of the most beautiful places in our country.

Hank Fischer
Montana representative
Defenders of Wildlife
947 Rimini
Missoula, MT 59801

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* *

Properly designed grazing management plans are capable of maintaining and improving the vegetation cover. In some cases, this can be accomplished by resting the range from livestock use to allow all plants an opportunity to become vigorous and reproduce. The amount of rest or protection from livestock use will depend upon the physiological requirements of the plants needed for watershed protection, wildlife habitat, livestock forage, and other uses.

#91

The costs of range improvements (based on 1979 cost figures) plus salary costs would average approximately $1,150,000 per year over a four year period. After 1983 costs would generally be $357,000 per year in salaries. Based on an AUM cost of $1.89 and an initial level of 349,398 AUMs, the yearly grazing receipts would be $660,362. Using a conservative 15 year project life figure, approximate 15 year costs would be $7,096,000. Fifteen year grazing fee receipts would be $9,905,000. The foregoing information must be considered with caution; it does not include any future increases in grazing fees, does not include the 15 year forage increase projected with the proposal, and does not include maintenance costs for range improvements. In addition, grazing fees are assessed because a product (forage) is consumed, not merely as a fund for range improvements. Also, the actual disbursement of grazing fee receipts is highly complex and all fees received are not returned directly for use in Montana. It should be noted that control of livestock grazing on public lands also provides benefits to other resources values.

The number of livestock in the ES area (approximately 29,000) is about 1% of the total number in Montana and .02 of 1% on a national basis (U.S. Statistical Abstract, 1977). It is estimated that in 1977 all livestock in the state of Montana were two and one-half percent of the national total.

With high grain prices, range forage is forecast to become even more important than it is now. USDA beef grading standards have changed. Animals can now reach marketable grades at lighter weights and less finish. This means less dependence on grain for finish cattle and more emphasis on marketing range fed cattle.

The benefit/cost analysis did not include a dollar value for watershed or aesthetic benefits. It did include benefits due to increased hunting resulting from slight increases in wildlife populations. Dollar values for watershed or aesthetic benefits are extremely difficult to quantify. If quantification of such values were possible, we believe it would likely increase the benefit proportion of the benefit/cost analysis.

* * *

#92

The possible impact of increasingly uniform grazing pressure is mentioned in the second paragraph under wildlife on page 3-16. Uniform grazing pressure would affect the availability of forage for wildlife and the structural diversity of the habitat.

Although grazing can reduce the amount of the current (palatable) growth of shrubs available to wildlife, since livestock prefer grasses, most range ecologists agree that in the long term livestock grazing favors the growth of shrubs (Wagner 1976). In many areas shrubs are now more abundant than they were at the time of the Lewis and Clark expedition. However, much of the livestock grazing in the late 1800s and early 1900s that favored the growth of shrubs was overgrazing and it is not well established whether the levels of stocking proposed in the DES are sufficient to actually promote the increase of shrub species.

#93

The four landform areas (Map 1-3 in the DES) analyzed in the soils and vegetation sections proved to be too large and the information on them too generalized to be useful in the wildlife analysis.

Riparian habitats are not considered in detail in the DES because only limited data on riparian habitat were available at the time it was written. Riparian habitats are discussed in the third and fourth full paragraphs on page 2-20, the seventh and eighth full paragraphs on page 3-8, the paragraph under white-tailed deer on page 3-18, the fourth paragraph under studies and monitoring programs on page 4-4, the third full paragraph on page 3-14, and the second full paragraph on page 8-21.

A riparian habitat inventory and management plan has been initiated within the ES area. Riparian habitats are being inventoried and their importance to wildlife will be evaluated in each resource area within about two years. Through the MFP process, the more important of such habitat will be identified and recommendations made. AMP revisions will then be made to protect these areas from grazing in accordance with the MFP. (See page 4-4 of the DES.)

#94

Riparian areas are generally preferred livestock use sites because of the water, succulent forage, and shade which they provide. It becomes very clear on these sites that an adequate amount of rest

* * *

from grazing use must be prescribed to allow for vegetation improvement and maintenance. We have learned from experience in connection with some existing allotment management plans that improvement and maintenance of herbaceous vegetation is possible within 1 or 2 grazing cycles (3-6 years or so). Reestablishment of the woody riparian vegetation requires more rest and it appears that minimizing livestock use during the hot part of the growing season is an important consideration. In some cases, fencing is required.

#95

A discussion of impacts from the proposed action on the Upper Missouri Wild and Scenic River is presented on page 3-30 of the DES. A final management plan for the riverway was approved by the State Director on October 20, 1978. The following general management objectives relative to grazing management are included in that plan (see pages 1-25 and 1-27 of the DES):

1. Manage grazing of public lands in a manner which maintains or improves forage production; maintains or enhances riparian vegetation, wildlife habitat, watershed and scenic areas; and minimizes conflict between livestock and recreationists.

2. Construct livestock management facilities such as fences and water sources to comply with scenic restrictions appropriate to the classification of the wild and scenic river segment. A few facilities such as fences or corrals on private land may be removed or relocated subject to obtaining scenic easements.

3. Exclude livestock from high visitor use areas, such as campsites, through fencing or changes in use season.

There are six existing, three revised, and eighteen proposed allotment management plans with all or portions of the pastures within the management corridor. Each AMP was carefully reviewed against the management objectives for the riverway.

#96

The example MFP decisions on page 1-7 are general illustrations and not as specific as the majority of individual MFP decisions or the objectives in AMPs. Specific periods of use will be set for each allotment and will take into account the improvement of deer, antelope, and sage grouse winter range. (Note that this refers to decision 1.3 on page 1-7, not 1.4 as indicated in your letter.)

* * *

#97

Contour furrowing is proposed primarily on sod-bound sites, where blue grama and little clubmoss often dominate the vegetation cover. Shallow furrowing (approximately 3-4 inches deep) will double soil moisture and subsequently increase production of existing native vegetation. Seeding legumes in the furrowed area also adds protein rich forage which can be sustained by deep taproots drawing from the increased soil moisture. The result can be a mixture of vigorous vegetation beneficial to both wildlife and livestock.

Big sagebrush spraying is proposed for an extremely dense stand in the Hay Coulee Common allotment. This dense stand has thickened because of past livestock grazing; mainly, cattle grazing the herbaceous plants and much less if any use of big sagebrush. Serious soil erosion is occurring and site productivity will continue to decline without a better protective ground cover. While this situation may be desirable wildlife habitat, it is not good watershed management, a major concern for all allotments. A higher composition of herbaceous plants (grasses and forbs) will help control soil erosion.

Many years ago, natural wildfires must have played a significant role in rapid conversion of vegetation types such as this. Selective prescribed burning would be another viable means of controlling this sagebrush stand, without the use of any chemicals. Unburned islands and enhanced edge effect could provide additional wildlife benefits with prescribed burning.

Also see response to comment #1.

#98

Although waterfowl would benefit from additional protection of riparian areas, they would also benefit significantly from the proposed action.

#99

The benefits resulting from the proposed action are modest for both livestock and wildlife. This is due partly to the fact that with few exceptions conditions in the area are already generally good. We believe that the impacts resulting from the proposed action are portrayed to the extent possible with the existing data base and are presented in an objective manner. See response to comments #245 and #283.

* * *

#100

We recognize that locations of the proposed range improvements are a major determinant of their impact on wildlife. Because of the large size of the area analyzed in the environmental statement, it was not possible to include a map of the locations of probable range improvements. However, the specific locations of all range improvements are included in individual AMP files which are available for public review at the respective BLM offices. As noted in the management framework plan summary on page 1-7, a careful evaluation of the location for water developments would be made to determine their impacts on wildlife habitat. A discussion of the resource tradeoff involved, also on page 1-7, indicates that it may be necessary to place water developments at sites that are less than optimum for livestock due to the location of key wildlife areas. It should be noted that a mitigating measure for the proposed action on page 4-1 indicates that an interdisciplinary team including a wildlife biologist and soil scientist would be involved in determining the location, time of construction, and construction stipulations for all proposed projects. We believe that in most cases with careful consideration of reservoir location, the impacts to wildlife can be minimized. It is possible that in some cases impacts to wildlife would be so severe that the Area Manager would decide against construction of a given reservoir.

#101

Maps 2-6 through 2-11 contain some of the needed information. However, some of the information on the maps is incomplete. For example, there are many prairie grouse dancing and strutting grounds that have not yet been located. An effort is being made to fill these data gaps (see response to comments #3 and #93 regarding prairie dog and riparian zone inventories).

All proposed water developments will receive close scrutiny by an interdisciplinary team including a wildlife biologist prior to implementation. Not all reservoirs proposed may actually be constructed and the Area Managers will carefully consider the wildlife biologists' recommendations as to the location of those reservoirs that are constructed.

#102

Fence specifications on antelope range follow the 1978 Guidelines for Management of the Pronghorn Antelope. See response to comments #38 and #299.

* *

#103

See response to comment #23.

#104

See response to comment #43.

#105

We do not consider the proposed action a maximum resource development program. It is an attempt to provide a balanced, multiple use land management program for the area in question. Better management of the vegetation and soil resource through control of livestock grazing provides benefits for a wide variety of resources, including wildlife.

H
H

Swinging H Cattle Company

Bob, Pat and R. C. Weingart

Winnett, Montana 59087

April 18, 1979

State Director, Bureau of Land Management
222 North 32nd Street
Billings, Montana

Dear Mr. Zaidlicz:

After reviewing the "Missouri Breaks" Environmental Statement Draft and studying the maps I would like to submit the following comments for your consideration regarding allotment number 4966 Drag Creek Allotment.

# 106 Maps 2-3- show my allotment on Dovetail Creek with a severe erosion condition. It is the only one in the Chain Buttes Grazing District and one of the two allotments in Petroleum County showing any erosion condition. Mother Nature is truely a fickle lady, her wrath is evident in any river breaks area. Fickle she is, but not so unjust as to cause erosion in just my pasture. All of the Dunn ridge (Dovetail area) and lower drainage into the river shows similiar erosion. This is a geological situation, not one caused by range management. In the final draft I request my allotment be shown in the white area as the surrounding ranges are, not singled out in the red color.

# 107 I was surprised to find on Maps 2-5 the range conditions shown on both of my allotments to be in fair and or poor condition. I would rate them as excellent and good as I have always taken pride in my management of the range, and in my opinion, have never overgrazed or overstocked my deeded land or government land. I think my allotment is in as good condition or better than the surrounding range. The summary in the back of the draft shows my range to be in good or fair condition, with no improvements planned and an increase in the number of AUMs. This does not correspond with the maps and I request that the final draft of this study show my range in the white color.

When this area was a common allotment, used by several ranchers together, the main source of water at that time was in the pastures that are now alloted to me. The cattle, at that time, would congregate around the reservoirs causing severe overgrazing in the immediate area. Now that we have individual allotments the desirable grasses and carrying capacity have increased one-hundred percent. This is due to the fences and reservoirs built in my allotment. Some of these fences and reservoirs have been built at my expense enabling me to improve my range conditions.

Page 2 Allotment 4966

# 108 At the time this survey was completed I requested the BLM send out the person doing the survey, his advisor and the area manager. I wanted them to go over my allotment with me and the problem areas shown to me as I feel this criticism of my allotment is not true. So far they have not come out.

I understand this survey was done by different people in each allotment rather than one team doing the entire area at the same time. It is also my understanding that a few of the allotments were not up to the desired specifications so a survey taken a few years ago was used to bring these areas up to the desired specifications.

In my opinion the BLM seems to be one of the few government agencies trying to keep cattle on the public land and I support their efforts to do so. I feel the ranchers with individual allotments take more pride in their operation than those in the common areas and range management plans are not always necessary to maintain good range practices.

Sincerely,

Robert E. Weingart

Robert E. Weingart

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* *

RESPONSE TO ROBERT E. WEINGART

#106

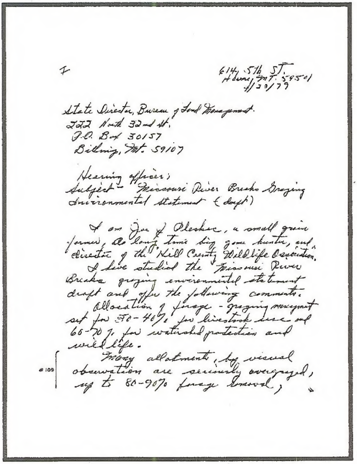
Map 2-3 is incorrect. The Drag Creek Allotment (#4966) has a total of 19,390 acres of which 70% is in slight, 15% is in moderate, and 15% is in critical erosion condition class. Map 2-3 should be changed accordingly.

#107

Map 2-5 has been deleted from the DES due to the misleading picture of range condition it presented. (See response to comment #13). Data collected by BLM on the Drag Creek Allotment (#4966) indicates that 67% (13,060 acres) is in good range condition and 33% (6,330 acres) is estimated to be in fair range condition.

#108

Since receipt of Mr. Weingart's letter, the BLM Area Manager and his staff have met with Mr. Weingart and reviewed the proposed AMP. Based on the reevaluation of existing data and collection of new information, the estimates of range condition class were revised upward slightly.



I

614 5th ST.
Havre, MT. 59501
4/23/79

State Director, Bureau of Land Management.
222 North 32nd St.
P.O. Box 30157
Billings, MT. 59107

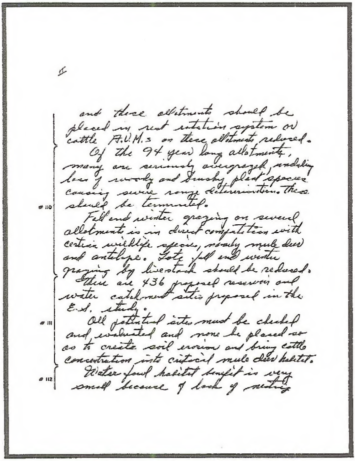
Hearing officer;
Subject – Missouri River Breaks Grazing Environmental Statement (draft)

I am Joe J Pleskac, a small grain farmer, a long time big game hunter, and director of the "Hill County Wildlife Association".

I have studied the Missouri River Breaks grazing environmental statement draft and offer the following comments.

Allocation of forage - grazing management set for 30-40% for livestock use and 60-70% for watershed protection and wildlife.

#109 Many allotments, by visual observation are seriously overgrazed, up to 80-90% forage removal,



II

and these allotments should be placed in rest rotation system or cattle A.U.M.s on these allotments reduced.

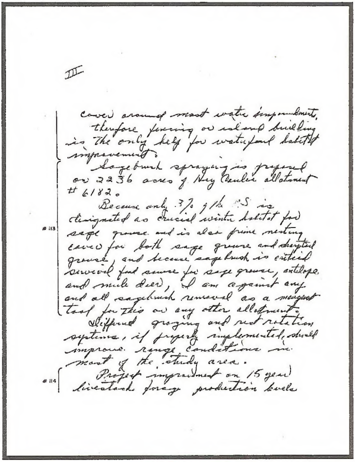
#110 Of the 94 year long allotments, many are seriously overgrazed, including loss of woody and brushy plant species causing severe range deterioration. These should be terminated.

Fall and winter grazing on several allotments is in direct competition with certain wildlife species, namely mule deer and antelope. Late fall and winter grazing by livestock should be reduced.

#111 There are 436 proposed reservoir and water catchment sites proposed in the E.S. study.

All potential sites must be checked and evaluated and none be placed so as to create soil erosion and bring cattle concentration into critical mule deer habitat.

#112 Water fowl habitat benefit is very small because of lack of nesting



III

cover around most water impoundments.

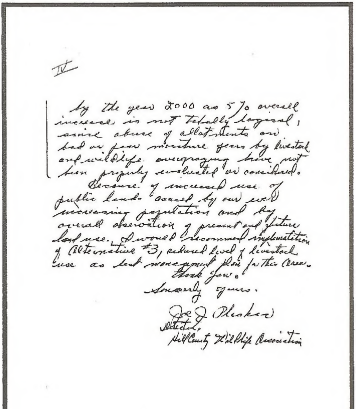
therefore fencing or island building is the only help for waterfowl habitat improvement.

#113 Sagebrush spraying is proposed on 2236 acres of Hay Coulee allotment #6182.

Because only 3% of the ES is designated as crucial winter habitat for sage grouse and is also prime nesting cover for both sage grouse and sharptail grouse, and because sagebrush is critical survival food source for sage grouse, antelope, and mule deer, I am against any and all sagebrush removal as a management tool for this or any other allotment.

Deferred grazing and rest rotation systems, if properly implemented, should improve range conditions in most of the study area.

#114 Projected improvement on 15 year livestock forage production levels



IV

by the year 2000 as 5% overall increase is not totally logical, since abuse of allotments on bad or poor moisture years by livestock and wildlife overgrazing have not been properly evaluated or considered.

Because of increased use of public lands caused by our ever increasing population and by overall observation of present and future land use. I would recommend implementation of Alternative #3, reduced level of livestock use as best management plan for this Area.

Thank you.

Sincerely yours.

Joe J Pleskac
Director,
Hill County Wildlife Association

* * *

RESPONSE TO JOE PLESKAC

#109

Average forage utilization at 80-90% is excessive grazing on a continuous seasonlong basis. Adjustments in stocking rates will be made on public lands where this situation has been identified. While 80% utilization of selectively grazed areas is not uncommon, these same sites must be rested from livestock use to allow replenishment of plant vigor, provide natural seed production and new seedling development to reestablish protective vegetation cover. The proposed rest rotation and deferred rotation systems are designed to accomplish these plant maintenance and reproductive functions.

#110

There are 95 allotments which are grazed on a seasonal basis. Some have spring use pastures with crested wheatgrass the dominant forage species. Other pastures may be used in fall, winter, or in several other combinations. Twenty-three of the 95 allotments are grazed in the fall or winter period. This leaves 72 allotments grazed predominately during the growing season.

It has been our observation and that of Willard and Herman (1977) that fall-winter grazing by livestock in the Missouri Breaks ES area allows for very good soil and plant conditions.

Where any of the 95 seasonal use allotments show serious wildlife habitat problems, adjustments in the kind of livestock, numbers or periods of use will be made.

#111

The potential impact of water developments on the habitat of mule deer and other wildlife species is a valid concern. Whether or not it outweighs other considerations in the Area Manager's decision to build or not build a reservoir depends on a variety of factors. See response to comment #101.

#112

Although fencing and islands often improve conditions for waterfowl, Gjersing (1975) found increased benefits to waterfowl on properly developed and managed rest rotation grazing systems. Gjersing's study was in Phillips County, north of the ES area in habitat very similar to the rolling plains portions of the ES area.

Also see response to comment #301.

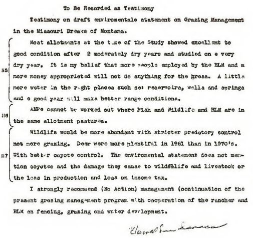
* * *

#113

See response to comments #1 and #97.

#114

Poor moisture years were considered when livestock carrying capacities were established and adjudicated. Your point is well taken, nonetheless, as weather is probably the biggest single rangeland influence. Forage production predictions are based on average moisture figures and definitely would decrease in drought years, whether the site is grazed or not. Barring prolonged drought, carrying capacities are considered conservative enough to obtain a 5% forage increase over 15 years.



To Be Recorded as Testimony

Testimony on draft enviromentale statement on Grazing Management in the Missouri Breaks of Montana.

115 Most allotments at the time of the Study showed excellent to good condition after 2 moderately dry years and studied on a very dry year. It is my belief that more people employed by the BLM and more money appropriated will not do anything for the Breaks. A little more water in the right places such as: reservoirs, wells and springs and a good year will make better range conditions.

116 AMPs cannot be worked out where Fish and Wildlife and BLM are in the same allotment pastures.

117 Wildlife would be more abundant with stricter predatory control not more grazing. Deer were more plentiful in 1961 than in 1970's. With better coyote control. The enviromental statement does not mention coyotes and the damage they cause to wildlife and livestock or the loss in production and loss on income tax.

I strongly recommend (No Action) management (continuation of the present grazing management program with cooperation of the rancher and BLM on fencing, grazing and water development.

Harold Lee Isaacs

* * *

RESPONSE TO HAROLD LEE ISAACS

#115

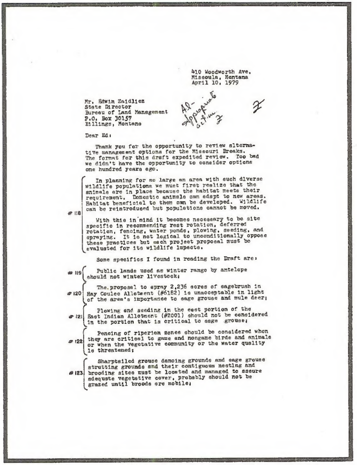
Favorable weather conditions and good water developments are indeed very important factors in forage production and utilization by livestock. Even good condition range, however, may only be producing at one-half its potential. Selective livestock use areas (near water sources, coulee bottoms, and other sites which are preferred by livestock) will usually be grazed beyond proper use. Recovery of these areas can be accomplished by the timely resting of each pasture to allow replenishment of plant vigor and reproduction necessary to establish a good cover of vegetation. Other multiple use values must be considered in livestock grazing management on public lands. Multiple use management objectives require field monitoring and evaluation. Allotment supervision is needed to insure compliance with permitted use. Along with the expenditure of funds comes the responsibility to be accountable for the field effectiveness of our actions.

#116

See response to comment #23.

#117

See response to comments #4 and #5.



410 Woodworth Ave,
Missoula, Montana
April 10, 1979

Mr. Edwin Zaidlicz
State Director
Bureau of Land Management
P.O. Box 30157
Billings, Montana

Al- Appropriate action Z

Z

Dear Ed:

Thank you for the opportunity to review alternative management options for the Missouri Breaks. The format for this draft expedited review. Too bad we didn't have the opportunity to consider options one hundred years ago.

# 118 In planning for so large an area with such diverse wildlife populations we must first realize that the animals are in place because the habitat meets their requirement. Domestic animals can adapt to new areas. Habitat beneficial to them can be developed. Wildlife can be reintroduced but populations cannot be moved.

With this in mind it becomes necessary to be site specific in recommending rest rotation, deferred rotation, fencing, water ponds, plowing, seeding, and spraying. It is not logical to unconditionally oppose these practices but each project proposal must be evaluated for its wildlife impacts.

Some specifics I found in reading the Draft are:

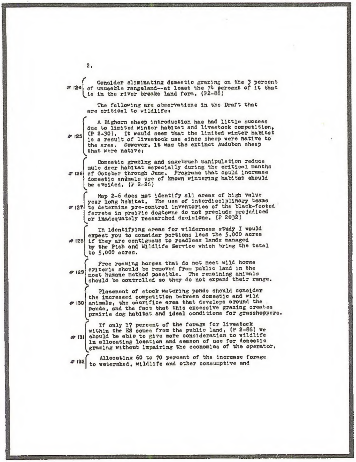
# 119 Public lands used as winter range by antelope should not winter livestock;

# 120 The proposal to spray 2,236 acres of sagebrush in Hay Coulee Allotment (#6182) is unacceptable in light of the area's importance to sage grouse and mule deer;

# 121 Plowing and seeding in the east portion of the East Indian Allotment (#2001) should not be considered in the portion that is critical to sage grouse;

# 122 Fencing of riparian zones should be considered when they are critical to game and nongame birds and animals or when the vegetative community or the water quality is threatened;

# 123 Sharptailed grouse dancing grounds and sage grouse strutting grounds and their contiguous nesting and brooding sites must be located and managed to assure adequate vegetative cover, probably should not be grazed until broods are mobile;



2.

# 124 Consider eliminating domestic grazing on the 3 percent of unusable rangeland--at least the 74 percent of it that is in the river breaks land form. (P2-86)

The following are observations in the Draft that are critical to wildlife:

# 125 A Bighorn sheep introduction has had little success due to limited winter habitat and livestock competition, (P 2-30). It would seem that the limited winter habitat is a result of livestock use since sheep were native to the area. However, it was the extinct Audubon sheep that were native;

# 126 Domestic grazing and sagebrush manipulation reduce mule deer habitat especially during the critical months of October through June. Programs that could increase domestic animals use of known wintering habitat should be avoided. (P 2-26)

# 127 Map 2-6 does not identify all areas of high value year long habitat. The use of interdisciplinary teams to determine pre-control inventories of the black-footed ferrets in prairie dogtowns do not preclude prejudiced or inadequately researched decisions. (P 2032)

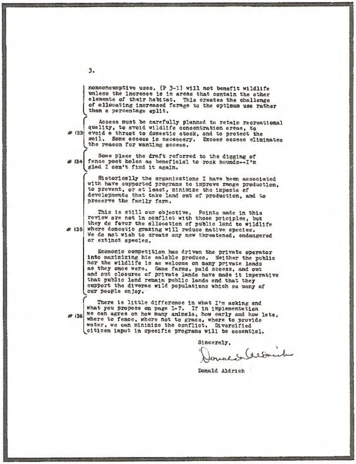
# 128 In identifying areas for wilderness study I would expect you to consider portions less the 5,000 acres if they are contiguous to roadless lands managed by the Fish and Wildlife Service which bring the total to 5,000 acres.

# 129 Free roaming horses that do not meet wild horse criteria should be removed from public land in the most humane method possible. The remaining animals should be controlled so they do not expand their range.

# 130 Placement of stock watering ponds should consider the increased competition between domestic and wild animals, the sacrifice area that develops around the ponds, and the fact that this excessive grazing creates prairie dog habitat and ideal conditions for grasshoppers.

# 131 If only 17 percent of the forage for livestock within the ES comes from the public land, (P 2-86) we should be able to give more consideration to wildlife in allocating location and season of use for domestic grazing without impairing the economics of the operator.

# 132 Allocating 60 to 70 percent of the increase forage to watershed, wildlife and other consumptive and



3.

nonconsumptive uses. (P 3-1) will not benefit wildlife unless the increase is in areas that contain the other elements of their habitat. This creates the challenge of allocating increased forage to the optimum use rather than a percentage split.

# 133 Access must be carefully planned to retain recreational quality, to avoid wildlife concentration areas, to avoid a threat to domestic stock, and to protect the soil. Some access is necessary. Excess access eliminates the reason for wanting access.

# 134 Some place the draft referred to the digging of fence post holes as beneficial to rock hounds--I'm glad I can't find it again.

# 135 Historically the organizations I have been associated with have supported programs to improve range production, to prevent, or at least, minimize the impacts of developments that take land out of production, and to preserve the family farm.

This is still our objective. Points made in this review are not in conflict with those priciples, but they do favor the allocation of public land to wildlife where domestic grazing will reduce native species. We do not wish to create any new threatened, endangered or extinct species.

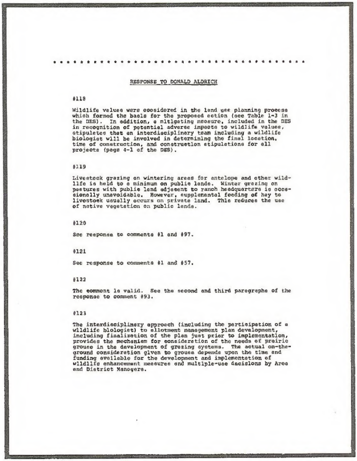
Economic competition has driven the private operator into maximizing his salable produce. Neither the public nor the wildlife is as welcome on many private lands as they once were. Game farms, paid access, and out and out closures of private lands have made it imperative that public land remain public lands and that they support the diverse wild populations which so many of our people enjoy.

# 136 There is little difference in what I'm asking and what you propose on page 1-7. If in implementation we can agree on how many animals, how early and how late, where to fence, where not to graze, where to provide water, we can minimize the conflict. Diversified citizen input in specific programs will be essential.

Sincerely,

Donald Aldrich

Donald Aldrich



* *

RESPONSE TO DONALD ALDRICH

#118

Wildlife values were considered in the land use planning process which formed the basis for the proposed action (see Table 1-3 in the DES). In addition, a mitigating measure, included in the DES in recognition of potential adverse impacts to wildlife values, stipulates that an interdisciplinary team including a wildlife biologist will be involved in determining the final location, time of construction, and construction stipulations for all projects (page 4-1 of the DES).

#119

Livestock grazing on wintering areas for antelope and other wildlife is held to a minimum on public lands. Winter grazing on pastures with public land adjacent to ranch headquarters is occasionally unavoidable. However, supplemental feeding of hay to livestock usually occurs on private land. This reduces the use of native vegetation on public lands.

#120

See response to comments #1 and #97.

#121

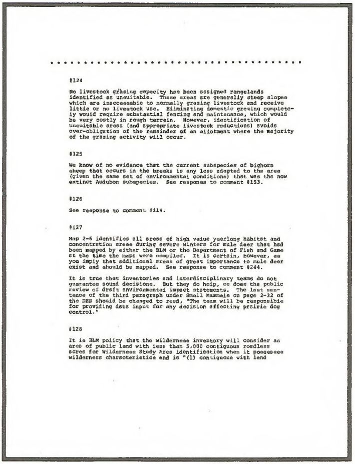
See response to comments #1 and #57.

#122

The comment is valid. See the second and third paragraphs of the response to comment #93.

#123

The interdisciplinary approach (including the participation of a wildlife biologist) to allotment management plan development, including finalization of the plan just prior to implementation, provides the mechanism for consideration of the needs of prairie grouse in the development of grazing systems. The actual on-the-ground consideration given to grouse depends upon the time and funding available for the development and implementation of wildlife enhancement measures and multiple-use decisions by Area and District Managers.



* * *

#124

No livestock grazing capacity has been assigned rangelands identified as unsuitable. These areas are generally steep slopes which are inaccessible to normally grazing livestock and receive little or no livestock use. Eliminating domestic grazing completely would require substantial fencing and maintenance, which would be very costly in rough terrain. However, identification of unsuitable areas (and appropriate livestock reductions) avoids over-obligation of the remainder of an allotment where the majority of the grazing activity will occur.

#125

We know of no evidence that the current subspecies of bighorn sheep that occurs in the breaks is any less adapted to the area (given the same set of environmental conditions) that was the now extinct Audubon subspecies. See response to comment #153.

#126

See response to comment #119.

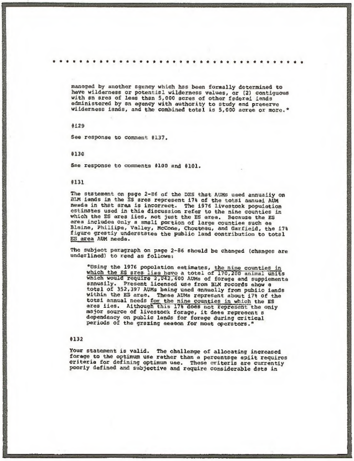
#127

Map 2-6 identifies all areas of high value yearlong habitat and concentration areas during severe winters for mule deer that had been mapped by either the BLM or the Department of Fish and Game at the time the maps were compiled. It is certain, however, as you imply that additional areas of great importance to mule deer exist and should be mapped. See response to comment #244.

It is true that inventories and interdisciplinary teams do not guarantee sound decisions. But they do help, as does the public review of draft environmental impact statements. The last sentence of the third paragraph under Small Mammals on page 2-32 of the DES should be changed to read, "The team will be responsible for providing data input for any decision affecting prairie dog control."

#128

It is BLM policy that the wilderness inventory will consider an area of public land with less than 5,000 contiguous roadless acres for Wilderness Study Area identification when it possesses wilderness characteristics and is "(1) contiguous with land



* * *

managed by another agency which has been formally determined to have wilderness or potential wilderness values, or (2) contiguous with an area of less than 5,000 acres of other federal lands administered by an agency with authority to study and preserve wilderness lands, and the combined total is 5,000 acres or more."

#129

See response to comment #137.

#130

See response to comments #100 and #101.

#131

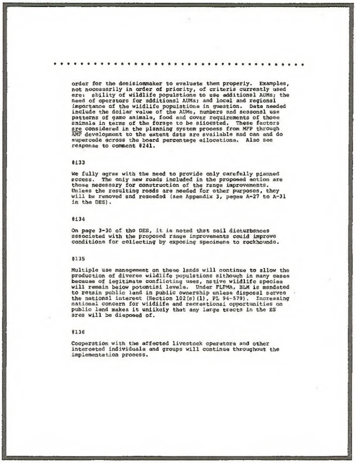
The statement on page 2-86 of the DES that AUMs used annually on BLM lands in the ES area represent 17% of the total annual AUM needs in that area is incorrect. The 1976 livestock population estimates used in this discussion refer to the nine counties in which the ES area lies, not just the ES area. Because the ES area includes only a small portion of large counties such as Blaine, Phillips, Valley, McCone, Chouteau, and Garfield, the 17% figure greatly understates the public land contribution to total ES area AUM needs.

The subject paragraph on page 2-86 should be changed (changes are underlined) to read as follows:

> "Using the 1976 population estimates, the nine counties in which the ES area lies have a total of 170,200 animal units which would require 2,042,400 AUMs of forage and supplements annually. Present licensed use from BLM records show a total of 352,397 AUMs being used annually from public lands within the ES area. These AUMs represent about 17% of the total annual needs for the nine counties in which the ES area lies. Although this 17% does not represent the only major source of livestock forage, it does represent a dependency on public lands for forage during critical periods of the grazing season for most operators."

#132

Your statement is valid. The challenge of allocating increased forage to the optimum use rather than a percentage split requires criteria for defining optimum use. These criteria are currently poorly defined and subjective and require considerable data in



* * *

order for the decisionmaker to evaluate them properly. Examples, not necessarily in order of priority, of criteria currently used are: ability of wildlife populations to use additional AUMs; the need of operators for additional AUMs; and local and regional importance of the wildlife populations in question. Data needed include the dollar value of the AUMs, numbers and seasonal use patterns of game animals, food and cover requirements of those animals in terms of the forage to be allocated. These factors are considered in the planning system process from MFP through AMP development to the extent data are available and can and do supercede across the board percentage allocations. Also see response to comment #241.

#133

We fully agree with the need to provide only carefully planned access. The only new roads included in the proposed action are those necessary for construction of the range improvements. Unless the resulting roads are needed for other purposes, they will be removed and reseeded (see Appendix 3, pages A-27 to A-31 in the DES).

#134

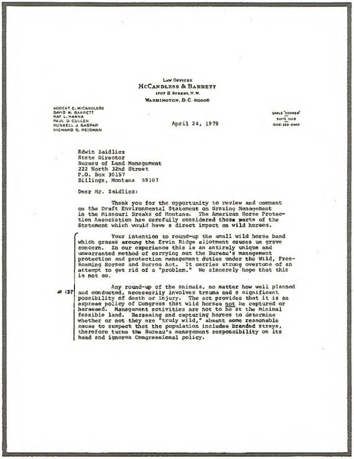
On page 3-30 of the DES, it is noted that soil disturbances associated with the proposed range improvements could improve conditions for collecting by exposing specimens to rockhounds.

#135

Multiple use management on these lands will continue to allow the production of diverse wildlife populations although in many cases because of legitimate conflicting uses, native wildlife species will remain below potential levels. Under FLPMA, BLM is mandated to retain public land in public ownership unless disposal serves the national interest (Section 102(a)(1), PL 94-579). Increasing national concern for wildlife and recreational opportunities on public land makes it unlikely that any large tracts in the ES area will be disposed of.

#136

Cooperation with the affected livestock operators and other interested individuals and groups will continue throughout the implementation process.



LAW OFFICES
McCANDLESS & BARRETT
1707 H STREET, N.W.
WASHINGTON, D.C. 20006

ROBERT C. McCANDLESS
DAVID M. BARRETT
RAY L. HANNA
PAUL D. CULLEN
RUSSELL J. GASPAR
RICHARD G. REIGMAN

CABLE "DOONER"
SUITE 1005
(202) 223-0440

April 24, 1979

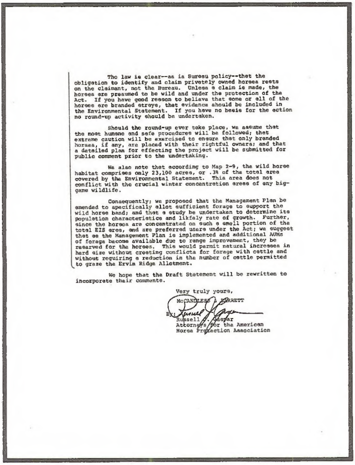
Edwin Zaidlicz
State Director
Bureau of Land Management
222 North 32nd Street
P.O. Box 30157
Billings, Montana 59107

Dear Mr. Zaidlicz:

Thank you for the opportunity to review and comment on the Draft Environmental Statement on Grazing Management in the Missouri Breaks of Montana. The American Horse Protection Association has carefully considered those parts of the Statement which would have a direct impact on wild horses.

Your intention to round-up the small wild horse band which grazes aroung the Ervin Ridge allotment causes us grave concern. In our experience this is an entirely unique and unwarranted method of carrying out the Bureau's management protection and protection management duties under the Wild, Free-Roaming Horses and Burros Act. It carries strong overtone of an attempt to get rid of a "problem." We sincerely hope that this is not so.

137 Any round-up of the animals, no matter how well planned and conducted, necessarily involves trauma and a significant possibility of death or injury. The act provides that it is an express policy of Congress that wild horses not be captured or harassed. Management activities are not to be at the minimal feasible land. Harassing and capturing horses to determine whether or not they are "truly wild," absent some reasonable cause to suspect that the population includes branded strays, therefore turns the Bureau's management responsibility on its head and ignores Congressional policy.



The law is clear--as is Bureau policy--that the obligation to identify and claim privately owned horses rests on the claimant, not the Bureau. Unless a claim is made, the horses are presumed to be wild and under the protection of the Act. If you have good reason to believe that some or all of the horses are branded strays, that evidence should be included in the Environmental Statement. If you have no basis for the action no round-up activity should be undertaken.

Should the round-up ever take place, we assume that the most humane and safe procedures will be followed; that extreme caution will be exercised to ensure that only branded horses, if any, are placed with their rightful owners; and that a detailed plan for effecting the project will be submitted for public comment prior to the undertaking.

We also note that according to Map 2-9, the wild horse habitat comprises only 23,100 acres, or .3% of the total area covered by the Environmental Statement. This area does not conflict with the crucial winter concentration areas of any big-game wildlife.

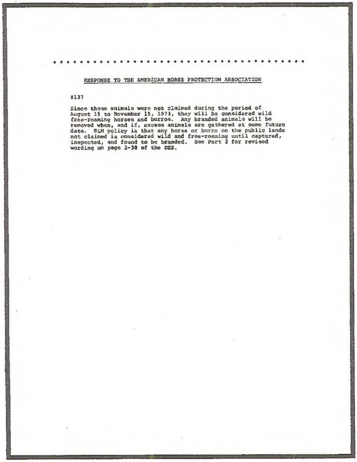
Consequently; we proposed that the Management Plan be amended to specifically allot sufficient forage to support the wild horse band; and that a study be undertaken to determine its population characteristics and likely rate of growth. Further, since the horses are concentrated on such a small portion of the total EIS area, and are preferred users under the Act; we suggest that as the Management Plan is implemented and additional AUMs of forage become available due to range improvement, they be reserved for the horses. This would permit natural increases in herd size without creating conflicts for forage with cattle and without requiring a reduction in the number of cattle permitted to graze the Ervin Ridge Allotment.

We hope that the Draft Statement will be rewritten to incorporate their comments.

Very truly yours,

McCANDLESS & BARRETT

By: Russell J. Gaspar
Russell J. Gaspar
Attorneys for the American
Horse Protection Association



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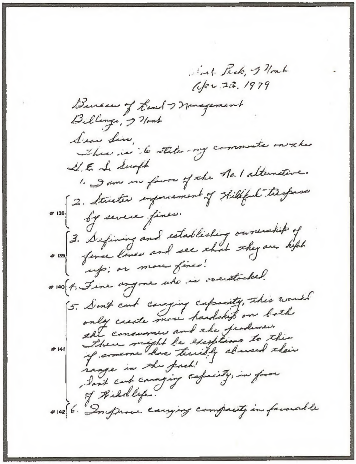
RESPONSE TO THE AMERICAN HORSE PROTECTION ASSOCIATION

#137

Since these animals were not claimed during the period of August 15 to November 15, 1973, they will be considered wild free-roaming horses and burros. Any branded animals will be removed when, and if, excess animals are gathered at some future date. BLM policy is that any horse or burro on the public lands not claimed is considered wild and free-roaming until captured, inspected, and found to be branded. See Part 2 for revised wording on page 2-30 of the DES.



Fort Peck, Mont
Apr 23. 1979

Bureau of Land Management
Billings, Mont

Dear Sirs,

This is to state my comments on the D.E.S. Draft

1. I am in favor of the No. 1 alternative.

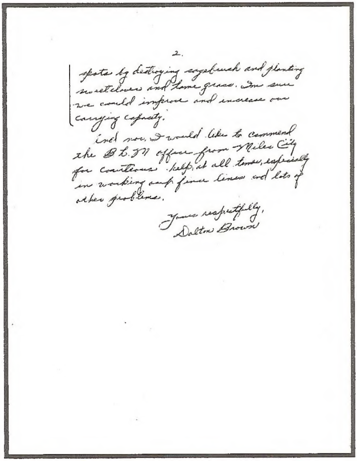
#138 2. Stricter enforcement of Willful trespass by severe fines.

#139 3. Defining and establishing ownership of fence lines and see that they are kept up; or more fines!

#140 4. Fine anyone who is overstocked.

#141 5. Don't cut carrying capacity, this would only create more hardship on both the consumer and the producer. There might be exceptions to this if someone has terribly abused their range in the past! Don't cut carrying capacity, in favor of Wildlife.

#142 6. Improve carrying capacity in favorable



2.

spots by destroying sagebrush and planting sweetclover and tame grass. I'm sure we could improve and increase our carrying capacity.

And now, I would like to commend the B.L.M office from Miles City for courteous help at all times, especially in working out fence lines and lots of other problems.

Yours respectfully,
Dalton Brown

* *

RESPONSE TO DALTON BROWN

#138

The grazing regulations specify the amount due the United States in settlement for unauthorized grazing use shall be determined in the following manner (43 CFR 4150.3):

(a) The amount due the United States in settlement for unauthorized grazing use shall be determined by the authorized officer as follows:

(1) "Nonwillful violations." The value of forage consumed as determined by the average monthly rate for pasturing livestock on privately owned land (excluding irrigated land) for the 11 western states as published annually by the U.S. Department of Agriculture.

(2) "Willful and repeated willful violations." Twice the value of the forage consumed as determined in paragraph (a)(1) of this section.

(3) The full value for all damages to the public lands and other property of the United States.

(4) All expenses incurred by the United States including those incurred in gathering, impounding, caring for, and disposing of livestock in cases which necessitate impoundment under Section 4150.5.

(b) Payment made under this section does not relieve the alleged violator of any criminal liability under federal or state law.

(c) No permit or lease shall be issued or renewed until any amount found to be due in the United States under this section has been paid.

#139

Fence maintenance on public lands is authorized on cooperative agreements or range improvement permits. Failure to comply with the terms, conditions, and stipulations of range improvement cooperative agreements or range improvement permits is subject to civil penalties under 43 CFR 4170.1.

* *

#140

43 CFR 4140.1 of the grazing regulations states:

(b) Persons performing the following prohibited acts may be subject to civil and criminal penalties under section 4170.1 and 4170.2:

(1) Allowing livestock on or driving livestock across these lands without a permit or lease or in violation of the terms and conditions of a permit or lease, either by exceeding the number of livestock authorized, or by allowing livestock to be on these lands in an area or at a time different from that designated.

#141

The proposed adjustments in stocking rates (both up and down) are reflective of the current available livestock forage. It would be contrary to existing law and regulations to authorize more livestock use than current available forage. Some adjustments have been proposed according to more accurate assessments of wildlife habitat requirements, as BLM's is mandated to manage public lands on a multiple use basis.

#142

Livestock carrying capacity could be significantly increased by various methods (refer to the Livestock Forage Maximization alternative, page 8-22). Only a small acreage (2,236) was identified for big sagebrush spraying because of critical erosion conditions (see response to comment #97).

April 18, 1979

Dear Edwin Zaidlicz,

We'd like to comment on the book "Missouri Breaks" and on the proposed wilderness near or including the "Big Dry" area. We hope you'll help people in livestock business so they won't lose their homes and every dream they've built.

We just bought the Neil and Cecelia Flint ranch and that was our dream come true. Now we're afraid we could lose it because we have BLM and CMR but we'll fight to keep our home and dream. Why do BLM and CMR have to try putting us out of business and try to blame decreasing wildlife numbers on us? Heres how we feel about all this:

#143 Raising livestock is our way of life-the only life we love-and its better than murdering wildlife in hunting season or being on dope, welfare or being a criminal etc. If they'd leave us alone and stop hunting season a couple of years and limit the numbers of licenses sold, there would be more wildlife-especially deer and antelope. Also, if BLM is worried about how wildlife can survive winters, all they have to do is feed them like we do our livestock. Livestock doesn't eat or damage wildlife the way the book says but coyotes, hard winters, disease, drought and hunters do. BLM can't have evidence that competition with livestock limits deer (pg. 2-27) because livestock doesn't bother deer etc. If they did, why do you always find wildlife with or near livestock and the wildlife aren't found in empty and ungrazed pastures most of the time. Stop the "Buck only" season also because bucks are most scarce.

#144 If BLM runs people out of business (pg. 8-22, 3-33) who will raise meat and crops to feed the world and who will pay government wages when livestock owners no longer do? This world is turning totally communist and I wish people would stop communism and crime instead of running people out of their homes.

Hunting and more people (recreation) scare more of your wildlife off than grazing livestock could. People and their vehicles also trample more grass than livestock does and they leave beer cans etc. Boating, motorcycling for fun etc. also scares and disturbs the natural habitat of fish and wildlife more than a grazing cow etc. does. Livestock doesn't make the scenery seem less primitive. They've been here since Cowboys and Indians were and that makes them primitive but if you run ranchers out of business, the world sure won't be as primitive. You can't bring dinosaurs back so whats wrong with livestock? Their alot more primitive and don't distract from the "wilds" like peoples litter, campers, boats etc. I've never heard anyone say livestock aren't primitive and if the "organic fertilizer" that livestock leaves really bothered people, why do people buy decorated turds? Organic fertilizer is the best to have because it doesn't hurt the soil etc. Reservoirs and hundreds of miles of new fence sure isn't going to make the land look "primitive" and what is a "wilderness" if it has fences all over it to spoil the whole "wild" idea?

#145 Livestock doesn't cause erosion either. Most erosion happens on gumbo hills where nothing grows and BLM tries to blame livestock and ranchers for the "Badlands" that BLM owns. People would probably buy most BLM if BLM would sell it then the ranchers could worry about grass, wildlife etc. and government would be out of our hair. Erosion will always be a problem because of wind, weather, rain and snow but don't blame livestock. They don't ruin grass like BLM says either because the only livestock that grazes that close is sheep, and your wildlife and prairie dogs and grasshoppers ruin alot of vegetation. People won't overgraze very much because that harms themselves. Its drought, hail etc. that causes less grass on some years. (This is an example that happened to Karen's Dad-Melvin Thomas. He got hailed out real bad for two years in a row while your BLM guys examined his ranch and they were so stupid that they tried to blame him for poor management and he's been under stocked for years so that wasn't it. They had to be pretty dumb when they couldn't tell that hail had done that damage). We don't need contour farming either cause big rains and spring runoff will really erode down those furrows.

#146 Garfield County has the lowest rate of unemployment-2.4 and if BLM forces people out of business for stupid reasons, you'll raise that drastically. On pg. S-24 the book says it would make ranchers find another place for their cattle during vegetation recovery period if the treated area couldn't be scheduled with normal rest. Thats discrimination and I don't know how BLM thinks you could run more cows someday where you can only run what we do now. Also, if you make smaller pastures, the livestock could "trample" the grass like they do in a corral because you'd have all livestock in a smaller place.

#147 We don't need more fences to deface the country, to repair or find dead wildlife in. Besides that, the BLM smooth bottom wire sure wouldn't keep wildlife from going on private land but BLM sure screams sometimes when our livestock is on BLM at the wrong time.

#148 Ranchers feed the wildlife anyway and try to keep them safe but BLM and CMR blames them for fewer wildlife. Its also no business of the BLM or anyone else if theres wildlife on private land. The book shows where wildlife can be found on deeded land.

#149 On pg. 2-26 it says there are 14,000-23,000 deer and that their the most abundant big game animal. Both those statements are false. Deer are alot more scarce than antelope. On pg. 2-29 it says there are only 13,000-20,000 antelope and as I said, there are alot more antelope than deer. Something that is scarce is bobcats and they shouldn't be trapped for about 4 years. In another place in the book it says there are only 40-60 bald eagles and thats wrong also because I've seen that many in one day on one ranch.

#150 BLM really stepped out of line when they showed peoples income. Thats our business and the IRS. We get a fair sized income from calf or lamb or crops but have you ever looked at what we end up with after paying for feed, loans etc.?

#151 On pg. 8-15 how would eliminating livestock stop shooting hazards? Livestock doesn't shoot people you know. People don't need to be shooting all over the world anyway because more accidents happen and that noise scares wildlife etc.

#152 Pg. 8-11 Livestock doesn't harm spawning areas for fish. Crittters only use the bank to sip water from and they sure aren't bothering eggs etc. like people and boats do.

#153 Pg. 2-31 It isn't competition with livestock that keeps Bighorn Sheep from being here, its people, coyotes and the wrong land for them.

#154 Fencing reservoirs and water tanks is stupid and so are the "rainwater catchments". The "catchments" pipes will freeze and break and will plug with mud and bushes. Livestock hardly ever get in water tanks and they don't harm reservoirs either.

#155 BLM damages more grass and land when they won't let someone put out a fire real quick with a dozer. Instead the BLM lets it burn forever (example: "Weeder's" ranch).

#156 Why does BLM and CMR have to bother people that stay home and work hard? They always have the meetings in spring when people are calving and lambing and roads are bad so they can't come and defend themselves too. Why should we have to defend ourselves from BLM and CMR? They shouldn't be trying to take our homes away and our lives too. This world gets tougher everyday but we sure won't stand still for communism to rule us or for people to take our homes away.

# 157 Tell me how BLM and CMR are going to get funds enough to raise roads, build fence and reservoirs etc. and to keep them up without using our tax dollars when they can't even run parks etc. now?

# 158 Would you also help stop the proposed wilderness that takes in the "Big Dry" area? None of it is wilderness but it sure is the homes of alot of innocent people that don't harm BLM. What is this world going to be if all the people are out playing in the "wilderness" and they've run the ranchers out that feed the people? You sure can't be an honest hard working person anymore and get by in the world. I sure haven't seen this world getting "eroded" by anything as much as the government has and believe me, the end of the world comes quick if government has its way. We'd be alot better off if BLM and CMR didn't exist and would stay off our backs.

Sure wish I'd known you could get such a poorly written book published because I'd have become an author years ago.

Please help stop all these idiotic plans for "wilderness" and for eliminating livestock so we can stop this "Civil War".

We'll see you in Jordan April 26th. Thanks for listening to our comments.

Sincerely,

Karen Taylor
Clay Taylor

* *

RESPONSE TO CLAY AND KAREN TAYLOR

#143

Hunting seasons, the number of licenses sold, and the species and the sex of animals hunted are the responsibility of the Montana Department of Fish and Game, not the BLM. The winter feeding of wildlife is sometimes a useful technique but it is very expensive and controversial. See response to comment #5 and the second paragraph of comment #76.

#144

The discussion of economic impacts resulting from the proposed action (page 3-33) indicates that three operators may experience difficulty in maintaining an economically viable operation during the initial phases of implementation. Alternative C, Reduced Levels of Livestock Use, could cause over one-half of the allotments (176 out of 318 allotments) to be forced out of business. We believe the economic impacts resulting from the proposed action have been minimized to the extent possible. The magnitude of the economic impacts shown for Alternative C will be carefully weighed by the decisionmaker in evaluating this alternative.

#145

Livestock grazing (if not properly managed) is capable of causing substantial erosion according to numerous range research studies and historical accounts. It is certainly true, however, that a substantial amount of erosion is geologic in nature. This is especially true in the badlands and breaks types. Fluctuation in weather is indeed a major cause in variability in annual forage production.

Congress currently feels that almost all public land should remain in public ownership (Federal Land Policy and Management Act).

See response to comment #115.

Contour furrowing has not been identified for your allotment.

#146

Vegetation manipulation practices, such as big sagebrush control and contour furrowing, normally require some initial rest from livestock use after treatment. This is necessary to allow the

* *

remaining native plants or newly seeded plant species an opportunity to establish a vigorous root system and to fill in the bare spaces. The acreage identified for treatment (page 8-24) has a potential for much greater forage production than it is now producing.

#147

Extremely small pastures are neither cost effective nor environmentally sound. However, reasonably located interior pasture fences will accommodate needed rotation of livestock to allow all plant species regular rest from domestic livestock use. We cannot exert direct management control on most wildlife, but are directed by law and regulation to manage livestock use in concert with other users of the public lands. The smooth bottom wire is specified to allow safer passage by antelope, not to control their movements.

#148

Our response to comment #7 acknowledges the substantial wildlife production that occurs on public land. It is further acknowledged that many ranchers suffer substantial economic losses from wildlife use of haystacks and various crops. BLM does not blame ranchers for fewer wildlife. What the wildlife section of this impact statement attempted to point out is that certain range management practices such as reservoir and fence construction can have an adverse impact on some wildlife species. Once the available facts on the benefits and negative impacts of a range improvement or grazing system are in hand, the BLM manager must decide through established planning system procedures whether or not the benefits outweigh various costs. Wildlife populations on private land can be relevant to these decisions since wildlife on private lands may also be dependent or partially dependent upon adjacent federal land.

#149

Although population estimates for big game animals within the entire ES area are necessarily very crude, available information indicates that there are considerably more deer compared to antelope than indicated by the figures presented in the DES. See response to comment #270. However, there are areas within the ES area where there are more antelope than deer. Perhaps this is what you are referring to.

It is agreed that bobcats are scarce. Recommendations for bobcat trapping regulations should be directed to the Montana Department of Fish and Game.

* *

The second sentence of the paragraph under northern bald eagle on page 2-36 of the DES indicates that there are more than 40 to 60 bald eagles in the ES area during March and April. Winter populations of bald eagles along the Missouri River fluctuate widely as birds from the north move in and others move out. Forty to sixty is a reasonable average figure for the ES area, but at any one time the actual number may be considerably more or less than that. The 1978-1979 winter eagle survey coordinated by the University of Montana (Servheen, Christopher 1979, letter to cooperators dated March 6, 1979) resulted in a count of nine eagles in the ES area. Your observation (if it was during the winter) verifies that at times there are many more than that.

#150

The economic impact analysis was based on gross rather than net livestock income figures. We believe the knowledge of the economic losses or gains resulting from implementation of the proposed action or alternatives is a critical element in the decisionmaking process. The economic analysis was based on countywide income figures, and did not present confidential personal income data.

#151

The "shooting hazard" on page 8-15 of the DES refers to the decrease in the possibility that livestock will be shot by sport shooters, such as prairie dog or coyote hunters.

#152

The statement in the second paragraph under Recreation on page 8-11 of the DES is correct. Note, however, that although these fisheries are degraded somewhat by livestock use of the shoreline, most of the fishery ponds in the ES area were constructed with range improvement funds, primarily to provide water for obtaining better livestock distribution and improvement of the rangeland vegetation resource.

#153

A substantial body of research literature including the references cited on page 2-30 of the draft substantiates the contention that bighorn sheep and cattle compete heavily because of similar food habits. Lung worm and other diseases often reduce bighorn sheep populations but research has shown that the disease can usually be traced to a weakened condition of the animals due to nutritional deficiencies caused by competition from other ungulates.

* *

See the paragraph on bighorn sheep on page 3-18 of the DES. Also see Part 2 for an addition to the wildlife analysis of the no grazing alternative (page 8-14 of the DES) emphasizing the potentially favorable impact on bighorn sheep of this alternative should they expand from their currently restricted range within the Charles M. Russell National Wildlife Refuge to the surrounding BLM land.

It should also be noted that bighorns are doing quite well on similar habitat in the Missouri Breaks in North Dakota. In fact, 12 three-quarter curl ram permits have been issued annually there the last four years (North Dakota Outdoors, Vol. 4, No. 8 1978).

#154

Reservoir and stock tank fencing are not proposed. A wood post and frame is generally installed with stock tanks (see page A-33). Rainwater catchments if properly designed are effective. A dike is usually constructed around the perimeter of the catchment to divert upslope water and debris. The problems you mention may occur, however.

#155

It is BLM policy not to use heavy equipment to suppress a fire if that equipment will cause more environmental damage than will be caused by the fire itself. Decisions in individual cases are not always clear cut. However, if human life or ranch headquarters or other important man-made structures are threatened by fire, BLM will use all feasible means including heavy equipment to suppress the fire.

#156

Public meetings are a critical component of the public involvement process. Because of tight time schedules for completion of the ES and the need for sufficient advance notice of the meetings, the available meeting dates fell during a period of poor weather when many ranchers were calving or lambing. However, when attendance at the meetings was not possible, all interested parties had an opportunity to comment in writing during a 52-day public comment period.

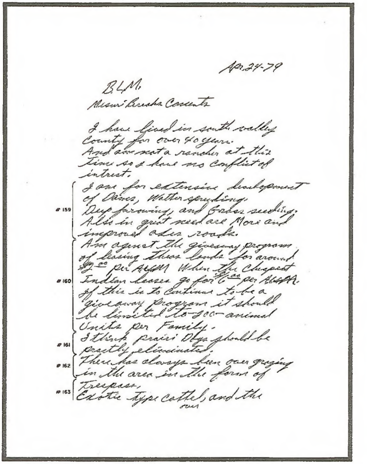
#157

The proposed action will be funded by money set aside specifically for range improvements from grazing fees and from funds allocated to BLM for the administration and management of the public lands.

* *

#158

The BLM is required by Section 603 of the Federal Land Policy and Management Act to inventory and identify those public lands having wilderness characteristics as defined in the Wilderness Act. This inventory must be complete by October 21, 1991.



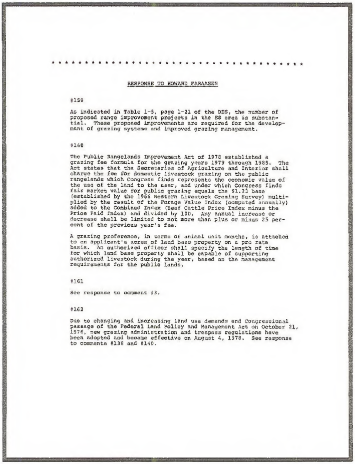
Apr.24-79

B.L.M.
Misouri Breaks Coments

I have lived in south valley
County for over 40 years.
And am not a rancher at this
time so I have no conflict of
intrest.
I am for extensive develpment
of Dams, Watter spreding.
#159 Deep farrowing, and Grass seeding.
Also in great need are More and
improved acces roads.
Am agenst the giveaway program
of leasing these lands for around
$2.00 per AUM When the Cheapest
#160 Indian leases go for $6.00 per AUM.
If this is to Continue to be a
giveaway Program it should
be limited to 500 animal
Units per Family.
I think prairi Dogs should be
#161 practly eliminated.
#162 There has always been over grazing
in the area in the form of
Trespass.
#163 Exotic type cattel, and the
over

practice of calving in february
Takes a lot more grass than
the practices of 25 years ago.
#164 Your present trespass laws are
practly a joke.
Am agenst any permits wich
allow Cattel to be on these
#165 range units in winter.
to many of them starve to
death.

Your Truly
Howard Farassen
Box 1025
Glasgow Mont.



* *

RESPONSE TO HOWARD FARAASEN

#159

As indicated in Table 1-5, page 1-21 of the DES, the number of proposed range improvement projects in the ES area is substantial. These proposed improvements are required for the development of grazing systems and improved grazing management.

#160

The Public Rangelands Improvement Act of 1978 established a grazing fee formula for the grazing years 1979 through 1985. The Act states that the Secretaries of Agriculture and Interior shall charge the fee for domestic livestock grazing on the public rangelands which Congress finds represents the economic value of the use of the land to the user, and under which Congress finds fair market value for public grazing equals the $1.23 base (established by the 1966 Western Livestock Grazing Survey) multiplied by the result of the Forage Value Index (computed annually) added to the Combined Index (Beef Cattle Price Index minus the Price Paid Index) and divided by 100. Any annual increase or decrease shall be limited to not more than plus or minus 25 percent of the previous year's fee.

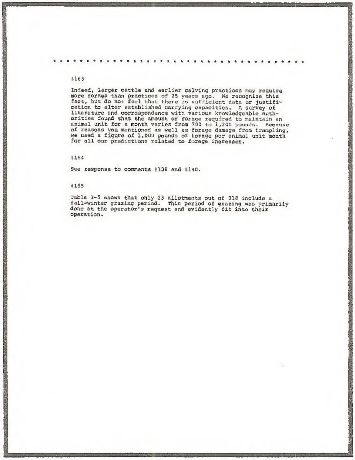
A grazing preference, in terms of animal unit months, is attached to an applicant's acres of land base property on a pro rata basis. An authorized officer shall specify the length of time for which land base property shall be capable of supporting authorized livestock during the year, based on the management requirements for the public lands.

#161

See response to comment #3.

#162

Due to changing and increasing land use demands and Congressional passage of the Federal Land Policy and Management Act on October 21, 1976, new grazing administration and trespass regulations have been adopted and became effective on August 4, 1978. See response to comments #138 and #140.



* *

#163

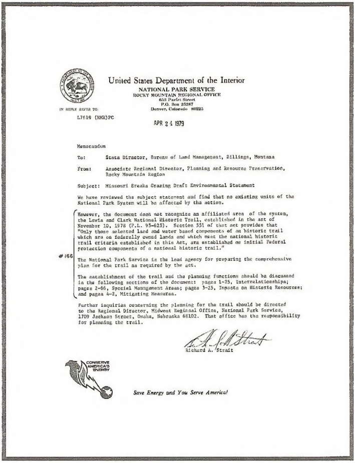
Indeed, larger cattle and earlier calving practices may require more forage than practices of 25 years ago. We recognize this fact, but do not feel that there is sufficient data or justification to alter established carrying capacities. A survey of literature and correspondence with various knowledgeable authorities found that the amount of forage required to maintain an animal unit for a month varies from 700 to 1,200 pounds. Because of reasons you mentioned as well as forage damage from trampling, we used a figure of 1,000 pounds of forage per animal unit month for all our predictions related to forage increases.

#164

See response to comments #138 and #140.

#165

Table 3-5 shows that only 23 allotments out of 318 include a fall-winter grazing period. This period of grazing was primarily done at the operator's request and evidently fit into their operation.



United States Department of the Interior
NATIONAL PARK SERVICE
ROCKY MOUNTAIN REGIONAL OFFICE
655 Parfet Street
P.O. Box 25287
Denver, Colorado 80225

IN REPLY REFER TO:
L7619 (RMR)PC

APR 24 1979

Memorandum

To: State Director, Bureau of Land Management, Billings, Montana

From: Associate Regional Director, Planning and Resource Preservation, Rocky Mountain Region

Subject: Missouri Breaks Grazing Draft Environmental Statement

We have reviewed the subject statement and find that no existing units of the National Park System will be affected by the action.

#166

However, the document does not recognize an affiliated area of the system, the Lewis and Clark National Historic Trail, established in the act of November 10, 1978 (P.L. 95-625). Section 551 of that act provides that "Only those selected land and water based components of an historic trail which are on federally owned lands and which meet the national historic trail criteria established in this Act, are established as initial Federal protection components of a national historic trail."

The National Park Service is the lead agency for preparing the comprehensive plan for the trail as required by the act.

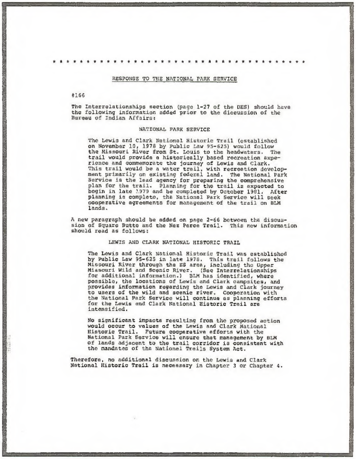
The establishment of the trail and the planning functions should be discussed in the following sections of the document: pages 1-25, Interrelationships; pages 2-66, Special Management Areas; pages 3-25, Impacts on Historic Resources; and pages 4-2, Mitigating Measures.

Further inquiries concerning the planning for the trail should be directed to the Regional Director, Midwest Regional Office, National Park Service, 1709 Jackson Street, Omaha, Nebraska 68102. That office has the responsibility for planning the trail.

Richard A. Strait

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!



* *

RESPONSE TO THE NATIONAL PARK SERVICE

#166

The Interrelationships section (page 1-27 of the DES) should have the following information added prior to the discussion of the Bureau of Indian Affairs:

NATIONAL PARK SERVICE

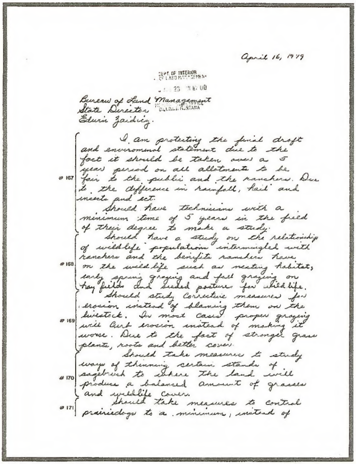
> The Lewis and Clark National Historic Trail (established on November 10, 1978 by Public Law 95-625) would follow the Missouri River from St. Louis to the headwaters. The trail would provide a historically based recreation experience and commemorate the journey of Lewis and Clark. This trail would be a water trail, with recreation development primarily on existing federal land. The National Park Service is the lead agency for preparing the comprehensive plan for the trail. Planning for the trail is expected to begin in late 1979 and be completed by October 1981. After planning is complete, the National Park Service will seek cooperative agreements for management of the trail on BLM lands.

A new paragraph should be added on page 2-66 between the discussion of Square Butte and the Nez Perce Trail. This new information should read as follows:

LEWIS AND CLARK NATIONAL HISTORIC TRAIL

> The Lewis and Clark National Historic Trail was established by Public Law 95-625 in late 1978. This trail follows the Missouri River through the ES area, including the Upper Missouri Wild and Scenic River. (See Interrelationships for additional information.) BLM has identified, where possible, the locations of Lewis and Clark campsites, and provides information regarding the Lewis and Clark journey to users of the wild and scenic river. Cooperation with the National Park Service will continue as planning efforts for the Lewis and Clark National Historic Trail are intensified.
>
> No significant impacts resulting from the proposed action would occur to values of the Lewis and Clark National Historic Trail. Future cooperative efforts with the National Park Service will ensure that management by BLM of lands adjacent to the trail corridor is consistent with the mandates of the National Trails System Act.

Therefore, no additional discussion on the Lewis and Clark National Historic Trail is necessary in Chapter 3 or Chapter 4.



April 16, 1979

DEPT. OF INTERIOR
OF LAND MANAGEMENT
23 '79
STATE OFFICE
BILLINGS, MONTANA

Bureau of Land Management
State Director
Edwin Zaidicz.

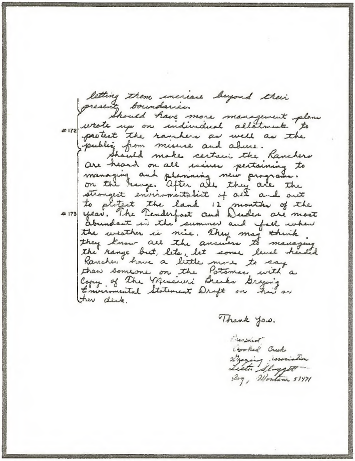
# 167 I am protecting the final draft and environmenal statement due to the fact it should be taken over a 5 year period on all allotments to be fair to the public and the ranchers. Due to the difference in rainfall, hail and insects and ect.
Should have technicians with a minimum time of 5 years in the field of their degree to make a study.

# 168 Should have a study on the relationship of wildlife population intermingled with ranchers and the benifits ranchers have on the wildlife such as nesting habitat, early spring grazing and fall grazing on hay fields and seeded pasture for wildlife.

# 169 Should study Corrective measures for erosion instead of blaming them on the livestock. In most cases proper grazing will Curb erosion instead of making it worse. Due to the fact of stronger grass plants, roots and better cover.

# 170 Should take measures to study ways of thinning certain stands of sagebrush to where the land will produce a balanced amount of grasses and wildlife cover.

# 171 Should take measures to control prairiedogs to a minimum, instead of



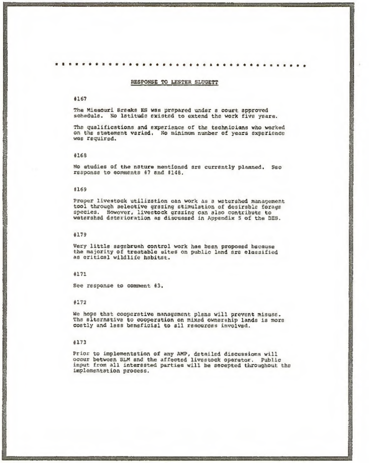
letting them increase beyond their present boundaries.

# 172 Should have more management plans wrote up on individual allotments to protect the ranchers as well as the public from misuse and abuse.

# 173 Should make certain the Ranchers are heard on all issues pertaining to managing and planning new programs. on the range. After all they are the strongest enviro-mentalist of all and out to plotect the land 12 months of the year. The Tenderfoot and Dudes are most abundant in the summer and fall when the weather is nice. They may think they know all the answers to managing the range but, lets, let some level headed Rancher have a little more to say than someone on the Potomac with a Copy of The Missouri Breaks Grazing Environmental Statement Draft on his or her desk.

Thank you.

President
Crooked Creek
Grazing Association
Lester Sluggett
Roy, Montana 59471



* *

RESPONSE TO LESTER SLUGETT

#167

The Missouri Breaks ES was prepared under a court approved schedule. No latitude existed to extend the work five years.

The qualifications and experience of the technicians who worked on the statement varied. No minimum number of years experience was required.

#168

No studies of the nature mentioned are currently planned. See response to comments #7 and #148.

#169

Proper livestock utilization can work as a watershed management tool through selective grazing stimulation of desirable forage species. However, livestock grazing can also contribute to watershed deterioration as discussed in Appendix 5 of the DES.

#179

Very little sagebrush control work has been proposed because the majority of treatable sites on public land are classified as critical wildlife habitat.

#171

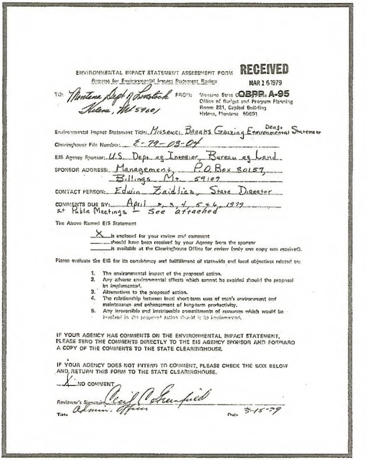
See response to comment #3.

#172

We hope that cooperative management plans will prevent misuse. The alternative to cooperation on mixed ownership lands is more costly and less beneficial to all resources involved.

#173

Prior to implementation of any AMP, detailed discussions will occur between BLM and the affected livestock operator. Public input from all interested parties will be accepted throughout the implementation process.



ENVIRONMENTAL IMPACT STATEMENT ASSESSMENT FORM
Request for Environmental Impact Statement Review

RECEIVED
MAR 1 6 1979
OBPP A-95

TO: Montana Dept of Livestock
Helena, Mt 59601

FROM: Montana State Clearinghouse
Office of Budget and Program Planning
Room 221, Capitol Building
Helena, Montana 59601

Environmental Impact Statement Title: Missouri Breaks Grazing Draft Environmental Statement
Clearinghouse File Number: E-79-03-04
EIS Agency Sponsor: U.S. Dept of Interior, Bureau of Land
SPONSOR ADDRESS: Management, P.O. Box 30157,
Billings Mt. 59107
CONTACT PERSON: Edwin Zaidlicz, State Director
COMMENTS DUE BY: April 2, 3, 4, 5 & 6, 1979
at Public Meetings – See attached

The Above Named EIS Statement

X is enclosed for your review and comment
___ should have been received by your Agency from the sponsor
___ is available at the Clearinghouse Office for review (only one copy was received).

Please evaluate the EIS for its consistency and fulfillment of statewide and local objectives related to:

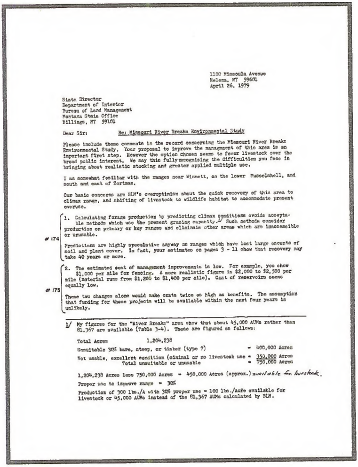
1. The environmental impact of the proposed action.
2. Any adverse environmental effects which cannot be avoided should the proposal be implemented.
3. Alternatives to the proposed action.
4. The relationship between local short-term uses of man's environment and maintenance and enhancement of long-term productivity.
5. Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

IF YOUR AGENCY HAS COMMENTS ON THE ENVIRONMENTAL IMPACT STATEMENT, PLEASE SEND THE COMMENTS DIRECTLY TO THE EIS AGENCY SPONSOR AND FORWARD A COPY OF THE COMMENTS TO THE STATE CLEARINGHOUSE.

IF YOUR AGENCY DOES NOT INTEND TO COMMENT, PLEASE CHECK THE BOX BELOW AND RETURN THIS FORM TO THE STATE CLEARINGHOUSE.

X NO COMMENT

Reviewer's Signature Cecil C. Greenfield
Title Admin. Officer
Date 3-15-79



1100 Missoula Avenue
Helena, MT 59601
April 26, 1979

State Director
Department of Interior
Bureau of Land Management
Montana State Office
Billings, MT 59101

Dear Sir: Re: Missouri River Breaks Environmental Study

Please include these comments in the record concerning the Missouri River Breaks Environmental Study. Your proposal to improve the management of this area is an important first step. However the option chosen seems to favor livestock over the broad public interest. We say this fully recognizing the difficulties you face in bringing about realistic stocking and greater applied multiple use.

I am somewhat familiar with the ranges near Winnett, on the lower Musselshell, and south and east of Zortman.

Our basic concerns are BLM's overoptimism about the quick recovery of this area to climax range, and shifting of livestock to wildlife habitat to accommodate present overuse.

1. Calculating forage production by predicting climax conditions avoids acceptable methods which use the present grazing capacity.[1] Such methods consider production on primary or key ranges and eliminate other areas which are inaccessible or unusable.

# 174 Predictions are highly speculative anyway as ranges which have lost large amounts of soil and plant cover. In fact, your estimates on pages 3 - 11 show that recovery may take 40 years or more.

2. The estimated cost of management improvements is low. For example, you show $1,000 per mile for fencing. A more realistic figure is $2,000 to $2,500 per mile (material runs from $1,200 to $1,400 per mile). Cost of reservoirs seems equally low.

# 175 These two changes alone would make costs twice as high as benefits. The assumption that funding for these projects will be available within the next four years is unlikely.

---

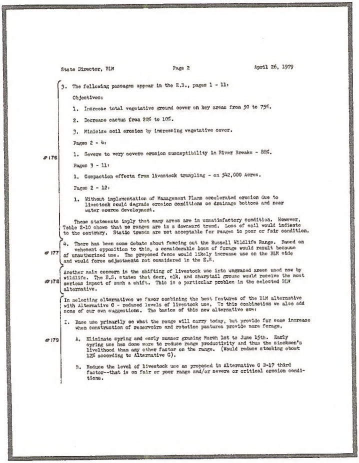
[1] My figures for the "River Breaks" area show that about 45,000 AUMs rather than 81,367 are available (Table 3-4). These are figured as follows:

Total Acres 1,204,238
Unsuitable 30% bare, steep, or timber (type 7) = 400,000 Acres
Not usable, excellent condition (minimal or no livestock use = 350,000 Acres
Total unsuitable or unusable = 750,000 Acres

1,204,238 Acres less 750,000 Acres = 450,000 Acres (approx.) available for livestock.

Proper use to improve range = 30%

Production of 300 lbs./A with 30% proper use = 100 lbs./Acre available for livestock or 45,000 AUMs instead of the 81,367 AUMs calculated by BLM.



State Director, BLM Page 2 April 26, 1979

3. The following passages appear in the E.S., pages 1 - 11:

Objectives:

1. Increase total vegetative ground cover on key areas from 50 to 75%.

2. Decrease cactus from 20% to 10%.

3. Minimize soil erosion by increasing vegetative cover.

Pages 2 - 4:

# 176 1. Severe to very severe erosion susceptibility in River Breaks - 80%.

Pages 3 - 11:

1. Compaction effects from livestock trampling - on 542,000 Acres.

Pages 2 - 12:

1. Without implementation of Management Plans accelerated erosion due to livestock could degrade erosion conditions on drainage bottoms and near water source development.

These statements imply that many areas are in unsatisfactory condition. However, Table 2-10 shows that no ranges are in a downward trend. Loss of soil would indicate to the contrary. Static trends are not acceptable for ranges in poor or fair condition.

# 177 4. There has been some debate about fencing out the Russell Wildlife Range. Based on vehement opposition to this, a considerable loss of forage would result because of unauthorized use. The proposed fence would likely increase use on the BLM side and would force adjustments not considered in the E.S.

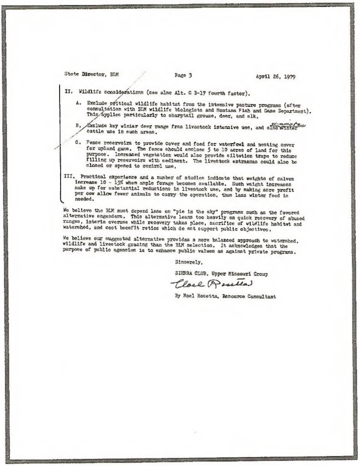
# 178 Another main concern is the shifting of livestock use into ungrazed areas used now by wildlife. The E.S. states that deer, elk, and sharptail grouse would receive the most serious impact of such a shift. This is a particular problem in the selected BLM alternative.

In selecting alternatives we favor combining the best features of the BLM alternative with Alternative C - reduced levels of livestock use. To this combination we also add some of our own suggestions. The basics of this new alternative are:

I. Base use primarily on what the range will carry today, but provide for some increase when construction of reservoirs and rotation pastures provide more forage.

# 179 A. Eliminate spring and early summer grazing March 1st to June 15th. Early spring use has done more to reduce range productivity and thus the stockmen's livelihood than any other factor on the range. (Would reduce stocking about 12% according to Alternative C).

B. Reduce the level of livestock use as proposed in Alternative C B-17 third factor--that is on fair or poor range and/or severe or critical erosion conditions.



State Director, BLM Page 3 April 26, 1979

II. Wildlife considerations (see also Alt. C B-17 fourth factor).

A. Exclude critical wildlife habitat from the intensive pasture programs (after consultation with BLM wildlife biologists and Montana Fish and Game Department). This applies particularly to sharptail grouse, deer, and elk.

B. Exclude key winter deer range from livestock intensive use, and ~~also winter~~ eliminate cattle use in such areas.

C. Fence reservoirs to provide cover and food for waterfowl and nesting cover for upland game. The fence should enclose 5 to 10 acres of land for this purpose. Increased vegetation would also provide siltation traps to reduce filling up reservoirs with sediment. The livestock entrances could also be closed or opened to control use.

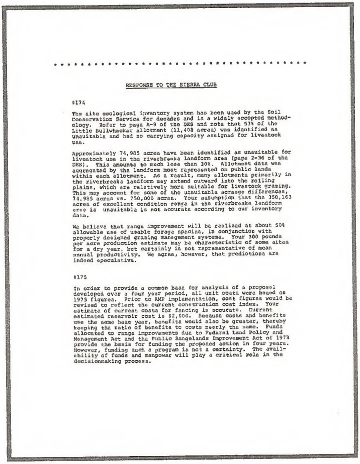
III. Practical experience and a number of studies indicate that weights of calves increase 10 - 15% when ample forage becomes available. Such weight increases make up for substantial reductions in livestock use, and by making more profit per cow allow fewer animals to carry the operation, thus less winter feed is needed.

We believe the BLM must depend less on "pie in the sky" programs such as the favored alternative engenders. This alternative leans too heavily on quick recovery of abused ranges, interim overuse while recovery takes place, sacrifice of wildlife habitat and watershed, and cost benefit ratios which do not support public objectives.

We believe our suggested alternative provides a more balanced approach to watershed, wildlife and livestock grazing than the BLM selection. It acknowledges that the purpose of public agencies is to enhance public values as against private programs.

Sincerely,

SIERRA CLUB, Upper Missouri Group
Noel Rosetta
By Noel Rosetta, Resource Consultant



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RESPONSE TO THE SIERRA CLUB

#174

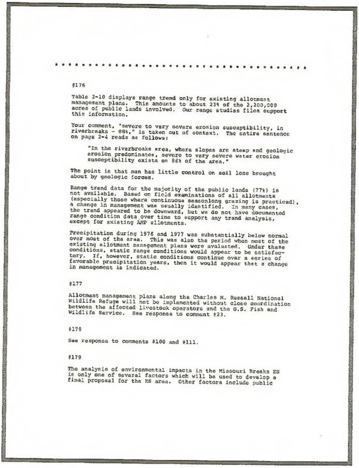
The site ecological inventory system has been used by the Soil Conservation Service for decades and is a widely accepted methodology. Refer to page A-9 of the DES and note that 53% of the Little Bullwhacker allotment (11,408 acres) was identified as unsuitable and had no carrying capacity assigned for livestock use.

Approximately 74,985 acres have been identified as unsuitable for livestock use in the riverbreaks landform area (page 2-36 of the DES). This amounts to much less than 30%. Allotment data was aggregated by the landform most represented on public lands within each allotment. As a result, many allotments primarily in the riverbreaks landform may extend outward into the rolling plains, which are relatively more suitable for livestock grazing. This may account for some of the unsuitable acreage differences, 74,985 acres vs. 750,000 acres. Your assumption that the 350,163 acres of excellent condition range in the riverbreaks landform area is unsuitable is not accurate according to our inventory data.

We believe that range improvement will be realized at about 50% allowable use of usable forage species, in conjunction with properly designed grazing management systems. Your 300 pounds per acre production estimate may be characteristic of some sites for a dry year, but certainly is not representative of mean annual productivity. We agree, however, that predictions are indeed speculative.

#175

In order to provide a common base for analysis of a proposal developed over a four year period, all unit costs were based on 1975 figures. Prior to AMP implementation, cost figures would be revised to reflect the current construction cost index. Your estimate of current costs for fencing is accurate. Current estimated reservoir cost is $2,000. Because costs and benefits use the same base year, benefits would also be greater, thereby keeping the ratio of benefits to costs nearly the same. Funds allocated to range improvements due to Federal Land Policy and Management Act and the Public Rangelands Improvement Act of 1978 provide the basis for funding the proposed action in four years. However, funding such a program is not a certainty. The availability of funds and manpower will play a critical role in the decisionmaking process.



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#176

Table 2-10 displays range trend only for existing allotment management plans. This amounts to about 23% of the 2,200,000 acres of public lands involved. Our range studies files support this information.

Your comment, "severe to very severe erosion susceptibility, in riverbreaks - 88%," is taken out of context. The entire sentence on page 2-4 reads as follows:

> "In the riverbreaks area, where slopes are steep and geologic erosion predominates, severe to very severe water erosion susceptibility exists on 88% of the area."

The point is that man has little control on soil loss brought about by geologic forces.

Range trend data for the majority of the public lands (77%) is not available. Based on field examinations of all allotments (especially those where continuous seasonlong grazing is practiced), a change in management was usually identified. In many cases, the trend appeared to be downward, but we do not have documented range condition data over time to support any trend analysis, except for existing AMP allotments.

Precipitation during 1976 and 1977 was substantially below normal over most of the area. This was also the period when most of the existing allotment management plans were evaluated. Under these conditions, static range conditions would appear to be satisfactory. If, however, static conditions continue over a series of favorable precipitation years, then it would appear that a change in management is indicated.

#177

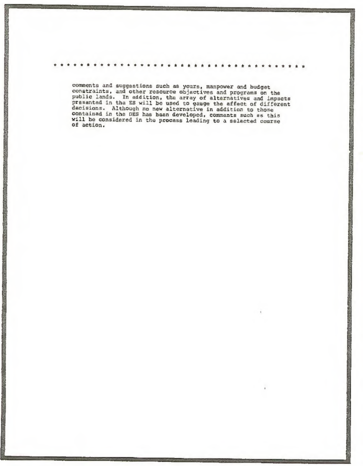
Allotment management plans along the Charles M. Russell National Wildlife Refuge will not be implemented without close coordination between the affected livestock operators and the U.S. Fish and Wildlife Service. See response to comment #23.

#178

See response to comments #100 and #111.

#179

The analysis of environmental impacts in the Missouri Breaks ES is only one of several factors which will be used to develop a final proposal for the ES area. Other factors include public



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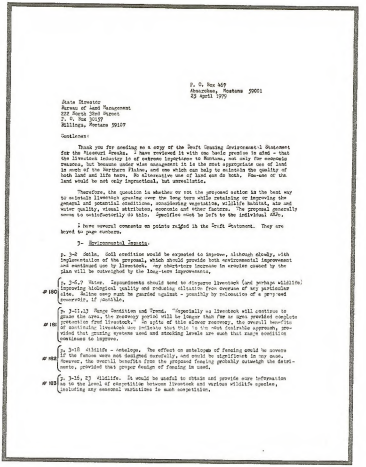
comments and suggestions such as yours, manpower and budget constraints, and other resource objectives and programs on the public lands. In addition, the array of alternatives and impacts presented in the ES will be used to gauge the affect of different decisions. Although no new alternative in addition to those contained in the DES has been developed, comments such as this will be considered in the process leading to a selected course of action.



P. O. Box 467
Absarokee, Montana 59001
25 April 1979

State Director
Bureau of Land Management
222 North 32nd Street
P. O. Box 30157
Billings, Montana 59107

Gentlemen:

Thank you for sending me a copy of the Draft Grazing Environmental Statement for the Missouri Breaks. I have reviewed it with one basic premise in mind - that the livestock industry is of extreme importance to Montana, not only for economic reasons, but because under wise management it is the most appropriate use of land in much of the Northern Plains, and one which can help to maintain the quality of both land and life here. No alternative use of land can do both. Non-use of the land would be not only impractical, but unrealistic.

Therefore, the question is whether or not the proposed action is the best way to maintain livestock grazing over the long term while retaining or improving the general and potential conditions, considering vegetation, wildlife habitat, air and water quality, visual attributes, economic and other factors. The proposal generally seems to satisfactorily do this. Specifics must be left to the individual AMPs.

I have several comments on points raised in the Draft Statement. They are keyed to page numbers.

3- Environmental Impacts.

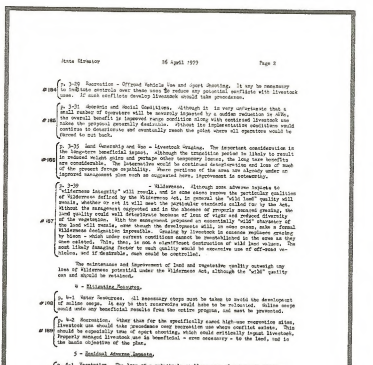
p. 3-2 Soils. Soil condition would be expected to improve, although slowly, with implementation of the proposal, which should provide both environmental improvement and continued use by livestock. Any short-term increase in erosion caused by the plan will be outweighed by the long-term improvements.

#180 p. 3-6,7 Water. Impoundments should tend to disperse livestock (and perhaps wildlife) improving biological quality and reducing siltation from overuse of any particular site. Saline seep must be guarded against - possibly by relocation of a proposed reservoir, if possible.

#181 p. 3-11,13 Range Condition and Trend. "Especially as livestock will continue to graze the area, the recovery period will be longer than for an area provided complete protection from livestock." In spite of this slower recovery, the overall benefits of continuing livestock use indicate that this is the most desirable approach, provided that grazing systems used and stocking levels are such that range condition continues to improve.

#182 p. 3-18 Wildlife - Antelope. The effect on antelope of fencing could be severe if the fences were not designed carefully, and could be significant in any case. However, the overall benefits from the proposed fencing probably outweigh the detriments, provided that proper design of fencing is used.

#183 p. 3-16, 23 Wildlife. It would be useful to obtain and provide more information as to the level of competition between livestock and various wildlife species, including any seasonal variations in such competition.



State Director 26 April 1979 Page 2

#184 p. 3-29 Recreation - Offroad Vehicle Use and Sport Shooting. It may be necessary to institute controls over these uses to reduce any potential conflicts with livestock uses. If such conflicts develop livestock should take precedence.

#185 p. 3-31 Economic and Social Conditions. Although it is very unfortunate that a small number of operators will be severely impacted by a sudden reduction in AUMs, the overall benefit in improved range condition along with continued livestock use makes the proposal generally desirable. Without its implementation conditions would continue to deteriorate and eventually reach the point where all operators would be forced to cut back.

#186 p. 3-35 Land Ownership and Use - Livestock Grazing. The important consideration is the long-term beneficial impact. Although the transition period is likely to result in reduced weight gains and perhaps other temporary losses, the long term benefits are considerable. The alternative would be continued deterioration and loss of much of the present forage capability. Where portions of the area are already under an improved management plan such as suggested here, improvement is noteworthy.

#187 p. 3-39 - Wilderness. Although some adverse impacts to "wilderness integrity" will result, and in some cases remove the particular qualities of Wilderness defined by the Wilderness Act, in general the "wild land" quality will remain, whether or not it will meet the particular standards called for by the Act. Without the management suggested and in the absence of properly managed grazing, the land quality could well deteriorate because of loss of vigor and reduced diversity of the vegetation. With the management proposed an essentially "wild" character of the land will remain, even though the developments will, in some cases, make a formal Wilderness designation impossible. Grazing by livestock in essence replaces grazing by bison - which under current conditions cannot be reestablished in the area as they once existed. This, then, is not a significant destruction of wild land values. The most likely damaging factor to such quality would be excessive use of off-road vehicles, and if desirable, such could be controlled.

The maintenance and improvement of land and vegetative quality outweigh any loss of Wilderness potential under the Wilderness Act, although the "wild" quality can and should be retained.

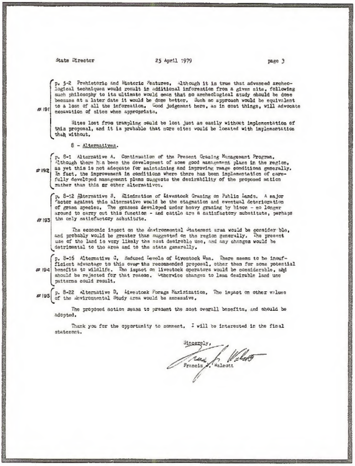
4 - Mitigating Measures.

#188 p. 4-1 Water Resources. All necessary steps must be taken to avoid the development of saline seeps. It may be that reservoirs would have to be relocated. Saline seeps could undo any beneficial results from the entire program, and must be prevented.

#189 p. 4-2 Recreation. Other than for the specifically named high-use recreation sites, livestock use should take precedence over recreation use where conflict exists. This should be especially true of sport shooting, which could critically impact livestock. Properly managed livestock use is beneficial - even necessary - to the land, and is the basic objective of the plan.

5 - Residual Adverse Impacts.

#190 p. 5-1 Vegetation. The loss of a relatively small acreage of vegetation seems insignificant considering the considerable improvement in vegetative quality which would result from the proposal.



State Director 25 April 1979 page 3

#191 p. 5-2 Prehistoric and Historic Features. Although it is true that advanced archeological techniques would result in additional information from a given site, following such philosophy to its ultimate would mean that no archeological study should be done because at a later date it would be done better. Such an approach would be equivalent to a loss of all the information. Good judgement here, as in most things, will advocate excavation of sites when appropriate.

Sites lost from trampling could be lost just as easily without implementation of this proposal, and it is probable that more sites would be located with implementation than without.

8 - Alternatives.

#192 p. 8-1 Alternative A. Continuation of the Present Grazing Management Program. Although there has been the development of some good management plans in the region, as yet this is not adequate for maintaining and improving range conditions generally. In fact, the improvement in conditions where there has been implementation of carefully developed management plans suggests the desirability of the proposed action rather than this or other alternatives.

#193 p. 8-12 Alternative B. Elimination of Livestock Grazing on Public Lands. A major factor against this alternative would be the stagnation and eventual deterioration of grama species. The grasses developed under heavy grazing by bison - no longer around to carry out this function - and cattle are a satisfactory substitute, perhaps the only satisfactory substitute.

The economic impact on the Environmental Statement area would be considerable, and probably would be greater than suggested on the region generally. The present use of the land is very likely the most desirable use, and any changes would be detrimental to the area and to the state generally.

#194 p. 8-16 Alternative C. Reduced Levels of Livestock Use. There seems to be insufficient advantage to this over the recommended proposal, other than for some potential benefits to wildlife. The impact on livestock operators would be considerable, and should be rejected for that reason. Otherwise changes to less desirable land use patterns could result.

#195 p. 8-22 Alternative D. Livestock Forage Maximization. The impact on other values of the Environmental Study area would be excessive.

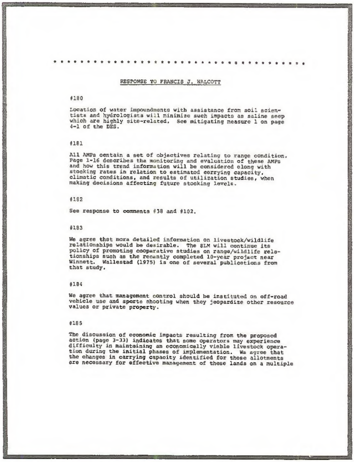
The proposed action seems to present the most overall benefits, and should be adopted.

Thank you for the opportunity to comment. I will be interested in the final statement.

Sincerely,

Francis J. Walcott

Francis J. Walcott



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RESPONSE TO FRANCIS J. WALCOTT

#180

Location of water impoundments with assistance from soil scientists and hydrologists will minimize such impacts as saline seep which are highly site-related. See mitigating measure 1 on page 4-1 of the DES.

#181

All AMPs contain a set of objectives relating to range condition. Page 1-16 describes the monitoring and evaluation of these AMPs and how this trend information will be considered along with stocking rates in relation to estimated carrying capacity, climatic conditions, and results of utilization studies, when making decisions affecting future stocking levels.

#182

See response to comments #38 and #102.

#183

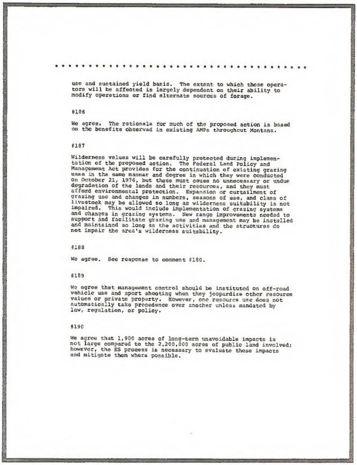
We agree that more detailed information on livestock/wildlife relationships would be desirable. The BLM will continue its policy of promoting cooperative studies on range/wildlife relationships such as the recently completed 10-year project near Winnett. Wallestad (1975) is one of several publications from that study.

#184

We agree that management control should be instituted on off-road vehicle use and sports shooting when they jeopardize other resource values or private property.

#185

The discussion of economic impacts resulting from the proposed action (page 3-33) indicates that some operators may experience difficulty in maintaining an economically viable livestock operation during the initial phases of implementation. We agree that the changes in carrying capacity identified for those allotments are necessary for effective management of these lands on a multiple



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use and sustained yield basis. The extent to which these operators will be affected is largely dependent on their ability to modify operations or find alternate sources of forage.

#186

We agree. The rationale for much of the proposed action is based on the benefits observed in existing AMPs throughout Montana.

#187

Wilderness values will be carefully protected during implementation of the proposed action. The Federal Land Policy and Management Act provides for the continuation of existing grazing uses in the same manner and degree in which they were conducted on October 21, 1976, but these must cause no unnecessary or undue degradation of the lands and their resources, and they must afford environmental protection. Expansion or curtailment of grazing use and changes in numbers, seasons of use, and class of livestock may be allowed so long as wilderness suitability is not impaired. This would include implementation of grazing systems and changes in grazing systems. New range improvements needed to support and facilitate grazing use and management may be installed and maintained so long as the activities and the structures do not impair the area's wilderness suitability.

#188

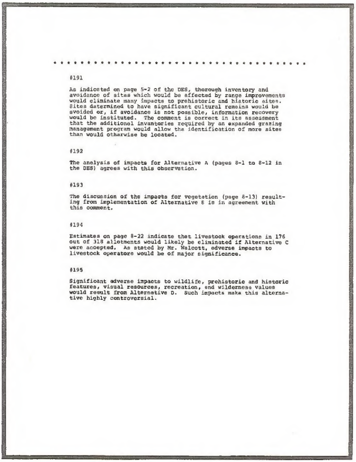
We agree. See response to comment #180.

#189

We agree that management control should be instituted on off-road vehicle use and sport shooting when they jeopardize other resource values or private property. However, one resource use does not automatically take precedence over another unless mandated by law, regulation, or policy.

#190

We agree that 1,900 acres of long-term unavoidable impacts is not large compared to the 2,200,000 acres of public land involved; however, the ES process is necessary to evaluate these impacts and mitigate them where possible.



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#191

As indicated on page 5-2 of the DES, thorough inventory and avoidance of sites which would be affected by range improvements would eliminate many impacts to prehistoric and historic sites. Sites determined to have significant cultural remains would be avoided or, if avoidance is not possible, information recovery would be instituted. The comment is correct in its assessment that the additional inventories required by an expanded grazing management program would allow the identification of more sites than would otherwise be located.

#192

The analysis of impacts for Alternative A (pages 8-1 to 8-12 in the DES) agrees with this observation.

#193

The discussion of the impacts for vegetation (page 8-13) resulting from implementation of Alternative B is in agreement with this comment.

#194

Estimates on page 8-22 indicate that livestock operations in 176 out of 318 allotments would likely be eliminated if Alternative C were accepted. As stated by Mr. Walcott, adverse impacts to livestock operators would be of major significance.

#195

Significant adverse impacts to wildlife, prehistoric and historic features, visual resources, recreation, and wilderness values would result from Alternative D. Such impacts make this alternative highly controversial.

April 20, 1979
Winnett, Mt. 59087

State Director
Bureau of Land Management

222 North 32nd Street
Billings, Montana 59107

Sirs:

After studing your grazing environmental statements I would like to make some suggestions pertaining to the allotment known as "Sheepwagon" allotment (5064).

In your "Allotment Management Plan" of 1976 this allotment was alloted to Andrew Iverson and it is now alloted to me.

I note in your plan Andrew Iverson's turn out was for 210 cattle from 5/26 to 10/28. In my operation it would work best to run 160 cattle from 5/1 to
#196 11/31 to utilize the crested wheatgrass on the north part of the pasture. This can be accomplished by constructing the proposed fence. If the fence is constructed on the north side of the road known as "Tin Can Hill road" it will eliminate the need for a cattle guard.

Also in the spring of 1977 I repaired and cleaned a spring in the north end of the pasture. The water supply seems adequate to help distribute the cattle better to that part of the pasture.

Thank you for your time.

Yours truly,

Earl Brady

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* *

RESPONSE TO EARL BRADY

#196

The sale of this allotment and its attached federal grazing privileges occurred after the draft AMP was completed. The extended grazing season you propose is allowable under the current adjudicated season of use for the Winnett administrative unit. As long as the proposed use does not exceed the rated carrying capacity, no problem is anticipated.

Natural Resources Defense Council, Inc.

Washington Office
917 15TH STREET, N.W.
WASHINGTON, D.C. 20005
202 737-5000

25 KEARNY STREET
SAN FRANCISCO, CALIFORNIA 94108
415 421-6561

New York Office
122 EAST 42ND STREET
NEW YORK, N.Y. 10017
212 949-0049

April 27, 1979

Mr. Edwin Zaidlicz
Montana State Director
Bureau of Land Management
222 North 32nd Street
P.O. Box 30157
Billings, Montana 59107

Re: Draft Environmental Impact Statement on Grazing Management in the Missouri Breaks of Montana.

Dear Mr. Zaidlicz:

I have reviewed the above-captioned environmental impact statement (EIS) on behalf of NRDC and wish to submit the following brief comments on its contents.

The Missouri River Breaks support a variety of significant resources, including wildlife, scenic, historic and recreational resources as well as livestock forage. The EIS reveals that resource conditions, in general, are better than those in many of the areas in other states previously subjected to environmental analyses prepared by the Bureau in connection with its range programs. Nonetheless, the statement also reveals that a number of serious resource problems exist in this area as the result of the manner in which existing livestock use is being managed. These problems include, for example, "important watershed problems," conflicts between livestock and recreational activities and livestock impacts on riparian areas. See pp.
#197 1-23, 4-2, 3-30. 1/ As has been the case with all range statements prepared to date, the "improved grazing management program" proposed for the area relies heavily on intensive grazing systems

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1/ All page references are to the draft EIS.

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Mr. Edwin Zaidlicz
April 27, 1979

PAGE two

and the "assumption" that funds needed to implement and monitor these systems will be forthcoming. 2/

The authors of this EIS are to be commended for preparing a readable and reasonably concise document dealing with a very large land area and a great many AMP's. Some of its contents, including, for example, the section on "historic features," are extremely well-written. Nonetheless, it suffers from some of the same problems from which earlier EIS's have suffered, particularly in connection with its treatment of the fundamental allocation decision which underlies the proposed action and the alternatives which it considers. Although we recognize that the Bureau's decision to change the topic of subsequent range statements from AMP's to "vegetative allocation" was made, at least in part, to facilitate analysis of these issues, the fact that these problems are still occurring suggests that they may continue to occur in connection with future statements regardless of the topic with which they deal. Consequently, these comments will deal primarily with these issues in the hope that they will be dealt with adequately in all range EIS's prepared by the BLM in Montana, including the final version of this particular statement.

#198 It is clear that range statements in general, regardless of the topic with which they deal, must discuss the basic management decision with which they deal -- i.e. the decision to allocate the lands involved to livestock use and the trade-offs involved in that decision between livestock, wildlife and other uses. Unfortunately, as indicated, this draft EIS, like earlier ones, fails to fulfill this fundamental obligation. Instead, it asks readers to assume that all lands allocated to grazing should be utilized for this purpose. Like earlier EIS's on AMP's, this EIS also asks readers to assume that the proposed intensive grazing systems have been properly selected and designed. Like those statements, it relies heavily on the theory on which those systems are based to justify their selection, See p. 3-3, rather than provide any analysis of their applicability to the lands involved. It makes no attempt to apply,

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see #197 2/ The draft contains no discussion of the total cost of implementing, monitoring and maintaining the proposed action or any alternative thereto. Even assuming that the necessary funds for the proposed action can be obtained, the failure to provide cost estimates for each of the alternatives and the proposed action prevents judgments from being made about their relative cost and benefits and the wisdom of expending the funds as proposed.

Mr. Edwin Zaidlicz
April 27, 1979

PAGE three

199 even in tabular form, any of the criteria utilized in the selection of management systems. It makes no attempt to discuss the findings of published studies and their limitations in light of conditions of the instant area. Although one study was in fact conducted in the area, no specific information about it, such as the length of time over which it was conducted, is supplied, and no description of the way in which it was utilized in developing these AMP's is given. Similarly, although the EIS indicates that information obtained from existing AMP's was considered in selecting grazing systems, see, e.g., p. 1-13, it does not describe the way in which that information was utilized. Nor does it explain how long these AMP's have been in existence or what their results have been, except in the most superficial way. See Table 2-10.

200 For example, the EIS reveals that approximately 30,612 acres of publicly-owned land out of more than 2,000,000 acres have not been allotted to livestock grazing. Neither the location of these lands nor the criteria used for their identification have been supplied. How were these areas identified? Were they set aside because of their high value for wildlife? Were they set aside because they are inaccessible to or otherwise "unsuitable" for livestock? Even assuming that these are the only lands within the area that are unsuitable for livestock use because of topographic and other features, this does not mean that livestock ought necessarily to be the primary management target on all the other lands in the EIS area.

201 The draft's treatment of the relationship between the proposed action and the applicable MFP's also exemplifies its failure to examine this fundamental management issue. The statement contains a generalized description of the Bureau's planning process. It notes that the MFP's establish the "coordinated land use allocations for all resources and establish objectives and constraints for each resource and support activity." (P. 1-4). It provides a summary of the representative decisions of the ten MFP's in the EIS area 3/ and the "resource tradeoffs"

3/ Although the EIS states that there are 11 planning units within the Missouri Breaks area, it refers to only 10 MFP's. How are the resources of the eleventh unit being managed in the absence of an MFP? On what were the proposed grazing decisions for that area based? How have they been guided and constrained as required by the planning process?

Mr. Edwin Zaidlicz
April 27, 1979

PAGE four

inherent in these decisions. (Table 1-3, p. 1-7). However, the EIS supplies no specific information about these MFP's and makes no attempt to explain their relationship to the proposed action. For example, Table 1-3 indicated that one of "the multiple use parameters generally common throughout the EH area," (Fn. 1 at p. 1-7) is a prohibition on sagebrush spraying in sage grouse areas becasue of the adverse impact such spraying would have on that species' habitat needs. (P. 1-8). Yet such spraying is proposed in an allotment containing "crucial winter habitat for sage grouse." (P. 3-17). Moreover, the text contains no discussion of any MFP decisions, no explanation of the rationales which underly them, and no analysis of the trade-offs among resources which they involve. For example, the text indicates that "substantial" benefits to wildlife would result from a "substantial reduction of livestock use" in certain unidentified areas and the development of HMP's. (P. 8-20). However, the document fails to discuss the trade-offs between wildlife and livestock use involved in the proposed action as well as to explain why these trade-offs were made or why no HMP's have been proposed.

In addition, it is clear that the table does not identify all the trade-offs that have been made, as well as that the MFP's have not resolved all resource conflicts in the area. Although the EIS reveals that there are conflicts between livestock grazing and riparian areas and recreational uses within the EIS area, these conflicts are not identified in Table 1-3, and there is no indication that any remedial actions were contemplated prior to the preparation of this document. 4/ The fact that certain conflicts are not identified in the draft suggests that they were not considered during the development of the applicable MFP's. This, in turn, suggests that the EIS should analyze the adequacy of these plans. However, no such analysis is supplied. # 202

4/ The mitigation section of the draft EIS indicates that some, if not all, of these particular conflicts will be resolved in the future following the completion of recreation and habitat inventories. Although it indicates that changes in some of the proposed AMP's may be necessary, it does not explain clearly how, and when, the need for such changes will be determined. For example, the EIS does not explain how these inventories will be used to determine whether the AMP's involved "require revision." (P. 4-4). Similarly, it does not indicate how long it will take to make these determinations and changes. The final version of this statement should clarify these issues.

Mr. Edwin Zaidlicz
April 27, 1979

PAGE five

The alternatives considered in this EIS do involve a range of livestock levels. As such, they represent an improvement over most of the earlier range statements. However, the discussion of the proposed alternatives is conclusory, brief and superficial. None of the analyses are site-specific and, indeed, the statement gives no indication that such analyses of the impacts of any alternative were ever performed. This treatment clearly suggests that these alternatives were developed only for academic, theoretical purposes.

203 This impression is enhanced by the nature of the alternatives considered. The alternatives themselves are generalized, across-the-board options, rather than genuine management choices. For example, no one expects the Bureau to eliminate livestock use in this area. Similarly, while the livestock maximization alternative represents the other extreme, such single-use management would appear to conflict directly with the multiple-use mandates of the Federal Land Policy and Management Act. Although Alternative C appears to the environmentally responsible option, it is described in theoretical and arbitrary term. The theoretical nature of the wildlife considerations involved in this alternative is clearly revealed by comparing its predicted benefits for wildlife, which range from slight to moderate for all species except wild horses. (Table 8-1, pp. 8-5 to 8-6, with the results of the studies cited on p. 8-20). Given the high wildlife values of many areas within the overal EIS area, as well as the need to supply some genuine management options, we urge the inclusion of a practical wildlife maximization alternative in the final EIS. This alternative should identify areas which should be managed to benefit wildlife, rather than livestock, and should set forth the conditions under which grazing will be permitted.

In conclusion, we thank you in advance for your consideration of our comments. If you have any questions about them, I hope you will not hesitate to contact us.

Sincerely,

Johanna H. Wald J.T.

Johanna H. Wald

JHW/jt

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RESPONSE TO NATURAL RESOURCES DEFENSE COUNCIL, INC.

#197

Table 1-7 (page 1-24) of the DES provided the total costs of the proposed action in terms of range improvements and government salary costs from fiscal year 1979 through fiscal year 1983, the implementation phase of the proposed action. Government salary cost would continue at $357,000 for operation of the proposal. Maintenance costs on range improvements are highly variable, and were not included for the proposed action.

The discussion of Alternative A (no action) on page 8-1 of the DES notes that, "present levels of manpower and funding would remain unchanged."

The discussion of Alternative E (elimination of livestock grazing on public lands) has been changed to include a discussion of the cost of fencing public lands. This cost is estimated to be $8,900,000 at the 1975 cost base. It can be assumed that the additional manpower costs would be at least equal to the costs for the propoed action, i.e., $357,000 per year.

The description of Alternative C (reduced levels of livestock use) on page 8-17 of the DES assumes that range improvements would remain the same for this alternative. Thus, the costs for range improvements and manpower would be the same as those for the proposed action.

The description of Alternative D (livestock forage maximization) notes on page 8-24 of the DES that the vegetation manipulation postulated would cost $3,258,751 in addition to the costs included in the proposed action. Thus, the total cost for range improvements for this alternative would be over $6,000,000. Manpower costs would be greater than those for the proposed action during the implementation phase. It is estimated that an additional 15 operations technicians and 20 range technicians would be needed for implementation of this alternative. Increased staff costs are therefore estimated to be $416,500.

#198

The multiple use analysis contained in the Management Framework Plans for the ES area did not preclude livestock use on any area, except in the Little Rocky Mountains, due solely to an allocation of lands for other uses such as wildlife or watershed protection. In the judgment of BLM field officials, data were not available to support an allocation to other uses significantly different from that included in the proposed action. Although some specific

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areas need additional or modified management to correct resource problems or enhance existing resource conditions, existing range condition (1% of the area within AMPs in poor condition with 78% in good or excellent condition) do not indicate general abuse of the public lands by livestock. Furthermore, no data exists on wildlife habitat or populations which would justify a substantial shift in emphasis toward wildlife, with its attendant disruption to the livestock industry. Grazing has been and is a legitimate and recognized use in the Missouri Breaks area. The plant communities evolved under grazing by large ungulates such as bison, elk, and bighorn sheep. Range conditions have improved in many areas with livestock grazing and proper grazing management has been shown to be effective in further improvement.

The 10 Management Framework Plans were developed with only livestock forage specified by allotment. Due to the lack of total vegetation production data and specific wildlife population information, numerical allotment allocations for wildlife and watershed were not possible. Even with these data limitations, the MFP allotment specific allocations to livestock do allow a reasonable amount of vegetation for wildlife and watershed protection (approximately 60-70% of the total vegetation production).

Livestock forage species consist primarily of grasses, about half of which would not be allocated to livestock. Big game animals consume primarily shrubs, forbs, and minor amounts of grass. Nearly all of this would be available to wildlife and other non-livestock consumptive uses. While wildlife consumptive use has not been specifically quantified on an allotment basis, it was judged to be acceptable in connection with the MFP process.

The type of vegetation data available in the ES area does not allow a direct allocation of AUMs to uses other than livestock. The survey used provides livestock carrying capacities based on livestock forage, not on total annual vegetation production. The end result of the survey in the Missouri Breaks area was a recommended livestock stocking rate in animal unit months per acre. Thus a direct allocation to wildlife was not possible. A comprehensive soil and vegetation inventory conducted in the 1950s and 1960s was the basis for allocating use for livestock grazing on a sustained yield basis. It was an ecological site field inventory and included collection of the following data elements:

1. Vegetation (aspect and specific composition)
2. Ecological condition class
3. Recommended stocking for livestock
4. Range site designation
5. Land use capability
6. Slope description
7. Soil erosion

* *

8. Effective soil depth
9. Texture of topsoil
10. Soil permeability
11. Type of underlying material

During development of draft allotment management plans, this information was updated where necessary. The recommended stocking rates for livestock provided in this base inventory are, therefore, very responsive to the capability of the land. Allocation to livestock was therefore made in accordance with this basic inventory as updated. It supports the 291,502 AUMs proposed on public lands within AMP areas.

As explained in Appendix 1, this livestock use level (291,502 AUMs) represents approximately 30-40% of the total annual production. The remainder (60-70%) would be available to watershed, wildlife, and other consumptive and non-consumptive uses. Individual allotment allocations to livestock are shown in Appendix 4. These allocation percentages were developed during preparation of the ES.

A wide variety of grazing systems are included in the proposed action. This is due to resource objectives being developed for each allotment, then a system selected that the AMP writer felt would best meet those objectives. The primary criteria used to select specific grazing systems include: (1) range condition, (2) amount of rest needed to replenish plant vigor and reproduction, (3) topography, (4) past experience, (5) size of allotment, and (6) the pattern of private and state intermingled land, including some cropland.

#199

A study was conducted by the University of Montana in the summer of 1977 (see page R-4, Earl E. Willard and Lynn Herman 1977). A copy may be obtained by writing the BLM Montana State Office. The study's conclusions were:

> "The use of rest rotation grazing in the northern Great Plains has been questioned (Herbel 1971, Lodge 1970). However, our study indicates that rest rotation grazing in eastern Montana is generally better than seasonlong grazing. Generally, rest rotation grazing allowed for better vigor of key forage species, faster soil water infiltration, more litter on the ground surface, reduced amounts of Opuntia polycantha, and greater production of desirable grasses for forage. Conversely, seasonlong grazing resulted in lower plant vigor, slower soil water infiltration, less litter, less production of desirable grasses, and more Opuntia polycantha.

* *

> Of all the grazing regimes included in our study only winter grazing allowed for better soil and plant conditions than did rest rotation grazing. However, this is to be expected. Plants are dormant during winter, so that adverse effects of grazing would be minimal. Soils are frozen during this time and would be relatively free from compaction by trampling.
>
> Only two sites grazed under a deferred rotation system were sampled. The system had been in use for six years, a period which is too short to allow the plants and soil to fully respond. No definite conclusions were drawn about the usefulness of this system.
>
> It is apparent from our study that range improvement in the northern Great Plains is slow. Even though range improvement is occurring on a site, a long period of time is required before substantial improvement in range condition will occur."

#200

The majority (24,270 acres) of the 30,612 acres not allotted to livestock are located in the Little Rocky Mountains. The remainder are in the Moccasin and Judith Mountain ranges. Unallotted lands in the Moccasin and Judith Mountains are generally inaccessible to livestock. Portions of the Little Rocky Mountains are accessible and suitable for livestock use and are grazed on a temporary nonrenewable basis. However, a management decision has been made in the Little Rocky Mountains that forage in that area is to remain unallotted to maintain plant vigor and reproduction, provide watershed protection, provide wildlife cover, and enhance aesthetic and recreation values. The primary reasons for such a decision are the slope and fragile nature of the watershed and the values for recreation in this area. No other locations where grazing is feasible in the ES area have been excluded from livestock use due to other multiple use considerations.

Livestock are not the primary management "target" on the lands in the sense of resource objectives. The Bureau has a legal mandate to manage the public lands for multiple use and sustained yield. No overriding conflicts between grazing and other resource values surfaced in the revision of the Management Framework Plans which would justify the exclusion of livestock in specific areas. It must be recognized that management of livestock becomes a primary management tool because of its very nature. Livestock management is the single largest resource modifier in the ES area which readily lends itself to control; management control which can lead to benefits for many resource values.

* *

Other public land users, such as wildlife populations which are the responsibility of the state, are far more difficult to control and manage on a scientific basis. It should also be noted that no area has been designated solely for livestock use while portions of the Little Rockies have been allotted strictly to watershed, wildlife, and recreation uses. On all Bureau administered lands, protection of watershed values and wildlife habitat is a primary consideration in management, as shown by the inclusion of objectives for those resources in the draft allotment management plans which are part of the proposed action.

#201

The U.L. Bend and Zortman planning units (see Map 1-6 in the DES), two relatively small units, were combined into one management framework plan. Thus, the land use planning process for the ES area included a total of 11 planning units; however, only 10 management framework plans were prepared.

The update and revision of the management framework plans and development of the allotment management plans (AMPs) prior to preparation of the ES was a closely coordinated process. The management framework plans established the allotments on which AMPs would be prepared and provided the level of livestock use for the allotments. Based on computations done for the ES this allocation level for livestock was estimated to be approximately 30% of the annual vegetative production of growth in the rough terrain and 40% on the more gently rolling rangelands. A more detailed discussion of the methodology used to develop livestock use levels is included in the response to comment #198 and in Appendix 1 of the DES. The management framework plans for the ES area did not specifically allocate AUMs to wildlife nor did they identify any locations (with the exception of portions of the Little Rocky Mountains) on which no livestock grazing should occur due to considerations for wildlife. It should be noted that an alternate allocation level, based largely on data obtained in the land use planning process, tied to resource conflicts was included in Alternative C, Reduced Levels of Livestock Use. As discussed in the response to comment #198, the existing condition of the range in the ES area indicates that, overall, livestock grazing has not abused the land and created the resource conflicts which would have necessitated a major shift in resource emphasis during the land use planning process.

The 10 management framework plans covering the ES area are very detailed and voluminous. In order to present the reader and the decisionmaker with a brief, concise summary of a large volume of material, Table 1-3 was developed. We could not present a detailed analysis of each management framework plan and still have published a readable document in a reasonable format. However, the footnote to Table 1-3 indicates that the management framework plans are available for review at appropriate BLM offices.

* *

Table 1-3 does not state that sagebrush spraying is prohibited. Management framework plan decision 2.3 (page 1-7 of the DES) notes that artificial land treatment practices will be limited. Management framework plan decision 2.4 (page 1-8) allows control of sagebrush only after 10 years of AMP implementation has failed to show an improvement in ecological range condition and then only after a loss of sagebrush has been shown not to be detrimental to existing wildlife populations. The tradeoffs resulting from these MFP decisions are also generally discussed in Table 1-3.

We believe the resource tradeoffs between wildlife and livestock are adequately discussed in Table 1-3 and in the individual management framework plans available for review in the respective BLM offices. It is clear that multiple use management cannot maximize all resources. Thus, increased emphasis on one resource will require a corresponding reduction in emphasis on another. We believe that the multiple use mix of resource values proposed for the ES area is a reasonable mix based on all resource values existing in the area.

Because the Missouri Breaks ES analyzes the impacts of an improved grazing management program and not all multiple use resource programs included in the management framework plans, habitat management plans were not discussed in detail in the DES. Three habitat management plans have been implemented and several more are proposed in the ES area; however, they are not the subject of the Missouri Breaks ES.

#202

A management framework plan cannot resolve all resource conflicts. The fact that "tradeoffs" must be made indicates that values for all resources are not optimized. Value judgments often must be made when determining the preferred mix of resource uses which will serve as a management goal.

The BLM is moving toward environmental statements on management framework plans in the future. However, current BLM grazing environmental statements analyze AMPs for vegetation allocation and not the complete range of multiple use tradeoffs included in the management framework plans.

Mitigating measure #14 (page 4-2 of the DES) should be reworded to read as follows: "Livestock grazing in specific high-use recreation sites along the Upper Missouri Wild and Scenic River would be controlled through fencing and/or selective grazing. An intensive inventory of these sites will be completed within one year after release of the final environmental statement. No proposed AMPs will be implemented along the riverway until this inventory information has been evaluated by the affected BLM Area Manager and the inventory data used to determine the final AMP content. This action would eliminate many recreationist-livestock conflicts." (Changes in the text are underlined.)

* *

Item 4 on page 4-4 of the DES under Studies and Monitoring Programs indicates that riparian habitats would be inventoried and their importance to wildlife evaluated in each resource area within two years following issuance of the final environmental statement. Changes in AMPs resulting from this inventory would be dependent in large part on the implementation sequence of the AMPs. Changes in AMPs would be determined by the Area Manager based on the identified mechanism for protecting riparian areas and the costs and manpower needed to implement such actions.

#203

The "no action" alternative is required by the National Environmental Policy Act and the regulations resulting from it. The "elimination of livestock grazing" alternative was analyzed in order to portray the social and environmental impacts of complete removal of livestock from public lands. The "reduced levels of livestock use" alternative was developed using allotment specific data on periods of livestock use, the type of grazing system proposed, acreage in fair or poor range condition, and acreage in severe or critical erosion condition. The reductions for the amount and kind of wildlife habitat in each allotment were based on mapped data from BLM planning system documents and Montana Department of Fish and Game habitat maps. The "livestock forage maximization" alternative was developed using allotment specific watershed and livestock maximization opportunities identified in the Unit Resource Analysis for each planning unit. The alternatives were not developed in the land use planning process. The size of the area involved in the Missouri Breaks ES and the availability of basic resource data precluded a more site-specific analysis of environmental consequences for each alternative. Consideration was given to inclusion in the DES of an alternative that identified specific areas that could be managed primarily for wildlife under habitat management plans. However, it was determined that sufficient site-specific data on wildlife were not available to develop and realistically analyze such an alternative. Therefore, no "wildlife maximization" alternative has been developed.

The
Wilderness
Society

107 West Lawrence, Helena, Montana 59601 (406) 443-7350
Mail To: P.O. Box 1184

April 27, 1979

Ed Zaidies
State Director
Bureau of Land Management
Box 30157
Billings, MT 59107

Dear Ed:

I wish to offer the following comments on the BLM's Missouri Breaks Grazing Environmental Statement (ES).

I find this ES to be an extremely comprehensive document containing a wealth of information that will be of value in managing all of the multiple uses on 2.2 millions acres of public lands in the Missouri Breaks.

#204 The basic concern I have is whether this ES is out of sync with the BLM Wilderness Review Program. For example, the public comment period on the ES ends April 30 and the public review of the BLM roadless inventory map is just beginning and will continue until June 30. I fear that management commitments may be made that will later preempt objective consideration of key roadless areas for wilderness classification. For instance, we want to insure that the high wilderness potential of areas adjacent to the Wild Missouri is fully protected. The case for preservation of these unique areas is enhanced even more by their contiguity with the Wild and Scenic segments of the Upper Missouri. Specifically, I am referring to roadless areas 244, 246, 249, 250, 251, 252, 253, 254, 255, 256, and 266--all of which are recommended for the intensive inventory by the Lewistown District Manager. Since the draft ES came out before the roadless areas were presented to the public we have no way of knowing how the proposed alternative might effect the wilderness suitability of these and other areas recommended for the intensive inventory in the Missouri Breaks.

#205 I want to make it clear that we recognize and support the continuation of livestock grazing in wilderness and we believe that well-managed grazing is a compatible use in wilderness. The Forest Service reports that there have never been any curtailments in numbers of livestock permitted to graze in wilderness because of wilderness designation and we want this excellent record to continue unbroken. When reductions in grazing are deemed necessary they should be made because of resource management considerations other than wilderness.

Livestock grazing is and should continue to be an important part of multiple use on most of the 2.2 million acres of public domain in the Missouri Breaks. However, it should not be a dominant concern to the detriment of other values. We fear that this might be the case in this ES.

#206 Wildlife is bound to suffer is the proposed action is implemented. The plan provides that almost the entire planning area will be intensively used by cattle. As a result, the natural diversity of plant communities upon which wildlife species depend will deteriorate. The riparian zones are perhaps most productive for wildlife and yet these critical areas aren't even identified in the ES. Heavy cattle use can be expected in areas with resultant adverse affects on wildlife habitat and watershed stability.

"In wildness is the preservation of the world." - Thoreau

Mr. Ed Zaidies-April 27, 1979
page two

#207 The ES fails to show the location of the proposed 436 reservoirs even though there could be serious conflicts with other values, such as riparian zones and winter wildlife ranges.

#208 I am unsure how such an intensive livestock grazing system can be made compatible with management of the CMR National Wildlife Refuge. I suggest the BLM address this point in it's revision of the draft ES.

#209 Of the alternatives presented, A (no action) is unacceptable and B (elimination of all livestock grazing) is so rediculous and potentially inflammatory that it should not have even been presented. Alternative D (maximum livestock production) would violate should land management practices and probably the law as well. While The Wilderness Society does not endorse any of the specific Alternatives as presented, Alternative C comes closest to striking a reasonable balance between livestock, wildlife and recreation. At the same time, significant wilderness values would be protected. According to the ES, Alternative C also portrays the most favorable economic picture.

Perhaps a blend (midway compromise) between the proposed action and Alternative C would come closest to resolving resource conflicts while protecting the Wild Missouri, CMR Wildlife Refuge and potential BLM Wilderness Study Areas. At the same time a viable livestock economy could be sustainted in perpetuity.

I've appreciated the opportunity to comment. Please keep me advised of the progress of your planning efforts in the Missouri Breaks.

Sincerely,

Bill Cunningham

Bill Cunningham
Montana/N.D. Representative

* *

RESPONSE TO THE WILDERNESS SOCIETY

#204

The BLM had very little flexibility in the timing of either the Missouri Breaks environmental statement (which must be complete by September 30, 1979 by court order) or the Wilderness Review Program which has general timeframes established by the Federal Land Policy and Management Act. We believe the timing of the two is not in conflict. Wilderness values will be carefully protected during implementation of the selected action. The Federal Land Policy and Management Act provides for the continuation of existing grazing uses in the same manner and degree in which they were conducted on October 21, 1976, but these must cause no unnecessary or undue degradation of the lands and their resources, and they must afford environmental protection. Expansion or curtailment of grazing use and changes in numbers, seasons of use, and class of livestock may be allowed so long as wilderness suitability is not imparied. This would include implementation of grazing systems and changes in grazing systems. New range improvements needed to support and facilitate grazing use and management may be installed and maintained so long as the activities and the structure do not impair the area's wilderness suitability.

#205

See response to comment #204.

#206

See response to comment #92 regarding the impact on wildlife of increasingly uniform grazing pressure and the response to comment #93 regarding BLM's management of riparian zones.

#207

The scale at which maps were printed in the DES did not allow for the reasonable depiction of the specific locations of range improvements. The locations of each range improvement are included in the individual AMP files available for review in respective BLM Resource Area Offices. It should be noted that a mitigating measure included in the DES (page 4-1) stipulates that an interdisciplinary team including a wildlife biologist will be involved in determining the final location, time of construction, and construction stipulations for all projects.

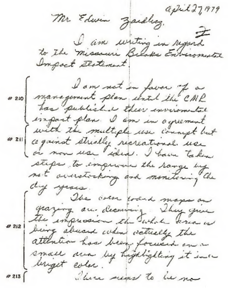
* *

#208

Allotment management plans along the Charles M. Russell National Wildlife Refuge boundary will not be implemented without close coordination between the affected livestock operators and the U.S. Fish and Wildlife Service. See response to comment #23.

#209

No new alternatives have been developed. See response to comments #17 and #203.



April 27, 1979

Mr Edwin Zaidlicz

I

I am writing in regard to the Missouri Breaks Environmental Impact Statement.

# 210 I am not in favor of a management plan until the CMR has published their environmental impact plan. I am in agreement
# 211 with the multiple use concept but against strictly recreational use or non use idea. I have taken steps to improve the range by not overstocking and monitoring the dry years.

# 212 The color coded maps on grazing are deceiving. They give the impression the whole area is being abused when actually the attention has been focused on a small area by highlighting it in a bright color.

# 213 There seems to be no

---

* *

RESPONSE TO CHARLES E. SCHWENKE

#210

See response to comment #23.

#211

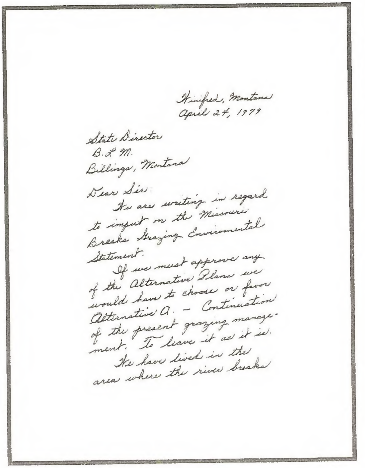
The Bureau of Land Management manages public land on the basis of multiple use and sustained yield. The multiple use values specified in the Federal Land Policy and Management Act are recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific, and historical values.

#212

Map 2-5 should be deleted from the DES. See response to comment #13.

#213

See response to comment #3.



Winifred, Montana
April 24, 1979

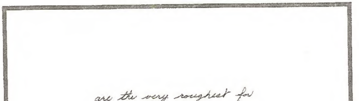
State Director
B.L.M.
Billings, Montana

Dear Sir:

We are writing in regard to input on the Missouri Breaks Grazing Enviromental Statement.

If we must approve any of the Alternative Plans we would have to choose or favor Alternative A. - Continuation of the present grazing management. To leave it as it is.

We have lived in the area where the river breaks



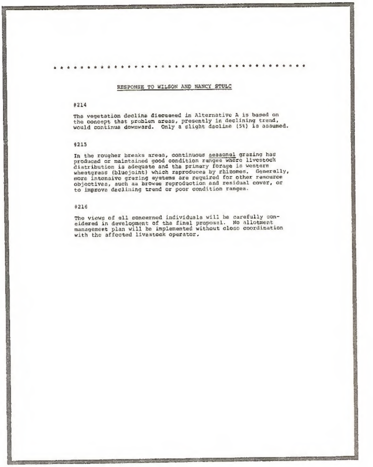
are the very roughest for many years.

# 214 Contrary to the opinion stated we feel there would be no more deterioration with this plan than any other plan.

# 215 Continuous grazing is the only way to harvest and re-seed vegetation in this rough territory. Plus the Government Fee for grazing is substantial.

By developing and using a rest rotation plan we have proved it increases productivity and compatable wild life growth.

After just coming through two of the toughest winters recorded in this area we find no death loss to wild life noticable. Instead an increase (over)



* *

RESPONSE TO WILSON AND NANCY STULC

#214

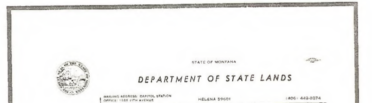
The vegetation decline discussed in Alternative A is based on the concept that problem areas, presently in declining trend, would continue downward. Only a slight decline (5%) is assumed.

#215

In the rougher breaks areas, continuous seasonal grazing has produced or maintained good condition ranges where livestock distribution is adequate and the primary forage is western wheatgrass (bluejoint) which reproduces by rhizomes. Generally, more intensive grazing systems are required for other resource objectives, such as browse reproduction and residual cover, or to improve declining trend or poor condition ranges.

#216

The views of all concerned individuals will be carefully considered in development of the final proposal. No allotment management plan will be implemented without close coordination with the affected livestock operator.



STATE OF MONTANA

DEPARTMENT OF STATE LANDS

MAILING ADDRESS: CAPITOL STATION
OFFICE: 1625 11TH AVENUE
HELENA 59601
(406) 449-2074

STATE BOARD OF LAND COMMISSIONERS
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AUDITOR

LEO BERRY, JR.
COMMISSIONER

SCHOOL LANDS

MINING

RECLAMATION

April 27, 1979

Mr. Edwin Zeidlicz, Director
Bureau of Land Management
P.O. Box 30157
Billings, MT 59107

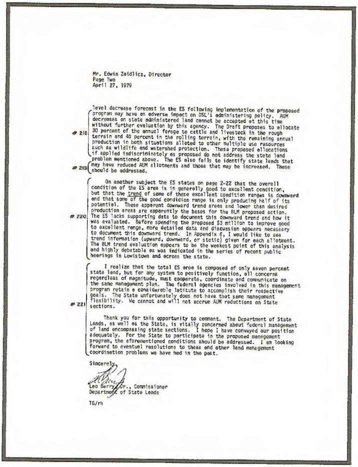
Dear Mr. Zeidlicz:

The following are the Department of State Land's (DSL) comments on the Draft Missouri Breaks Grazing Environmental Statement (ES). Our general overview of the Draft as a feasible management tool to implement a complex land ownership coordination problem is one of optimism. Although we are generally optimistic we, nevertheless, have some specific concerns and criticisms that need to be aired before a final program is proposed.

# 217 The ES through its exclusion of the Charles M. Russell National Wildlife Refuge (CMR) has administratively built a fence around the CMR. A fence around the CMR, either administrative or physical, is a concept that continues to alienate local landowners and should be avoided. The CMR should be included in this proposed management plan. Based on anticipated forage increases, an overall increase of six percent in wildlife populations is a possible prediction according to the ES. This apparent benefit to wildlife associated with the predicted benefits to range, water and recreational resources and the slight adverse affects on prehistoric, historic and visual resources appears to justify an extended effort to include the CMR into this plan.

Being the largest state land administering agency of the State of Montana, we are well aware of the complex coordination problems inherent in managing land. However, where some agencies may administer their lands for numerous objectives such as wildlife, recreation, scenic values, grazing, etc., the Department of State Lands lacks some of that flexibility. Our objective is to manage the state lands in a manner condusive to a sustained yield for the support and maintenance of the public school system (school trust).

Our concerns, therefore, center around the impact that the proposed plan will have on the management of the state land. Indirectly, of course, we realize range improvements throughout the area will economically benefit all land owners in the long-range analysis. Our immediate concerns are with the Animal Unit Month (AUM) allocations. The grazing



Mr. Edwin Zaidlicz, Director
Page Two
April 27, 1979

# 218 level decrease forecast in the ES following implementation of the proposed program may have an adverse impact on DSL's administering policy. AUM decreases on state administered land cannot be accepted at this time without further evaluation by this agency. The Draft proposes to allocate 30 percent of the annual forage to cattle and livestock in the rough terrain and 40 percent in the rolling terrain, with the remaining annual production in both situations alloted to other multiple use resources such as wildlife and watershed protection. These proposed allocations if applied indiscriminately as proposed do not address the state land problem mentioned above.

# 219 The ES also fails to identify state lands that may have reduced AUM allotments and those that may be increased. These should be addressed.

# 220 On another subject the ES states on page 2-22 that the overall condition of the ES area is in generally good to excellent condition, but that the trend of some of these excellent condition ranges is downward and that some of the good condidion range is only producing half of its potential. These apparent downward trend areas and lower than desired production areas are apparently the bases for the BLM proposed action. The ES lacks supporting data to document this downward trend and how it was evaluated. Before spending the proposed $3 million to improve good to excellent range, more detailed data and discussion appears necessary to document this downward trend. In Appendix 6, I would like to see trend information (upward, downward, or static) given for each allotment. The BLM trend evaluation appears to be the weakest point of this analysis and highly debatable as was indicated in the series of recent public hearings in Lewistown and across the state.

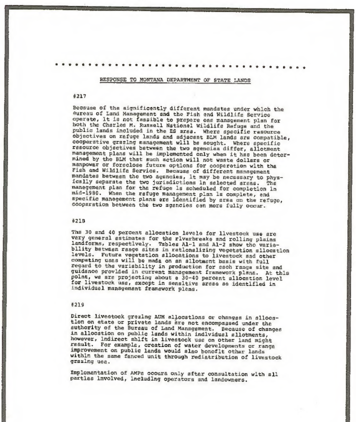
# 221 I realize that the total ES area is composed of only seven percent state land, but for any system to positively function, all concerns regardless of magnitude, must cooperate, coordinate and communicate on the same management plan. The federal agencies involved in this management program retain a considerable latitute to accomplish their respective goals. The State unfortunately does not have that same management flexibility. We cannot and will not accrue AUM reductions on State sections.

Thank you for this opportunity to comment. The Department of State Lands, as well as the State, is vitally concerned about federal management of land encompassing state sections. I hope I have conveyed our position adequately. For the State to participate in the proposed management program, the aforementioned conditions should be addressed. I am looking forward to eventual resolutions to these and other land management coordination problems we have had in the past.

Sincerely,

Leo Berry, Jr., Commissioner
Department of State Lands

TG/rh



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RESPONSE TO MONTANA DEPARTMENT OF STATE LANDS

#217

Because of the significantly different mandates under which the Bureau of Land Management and the Fish and Wildlife Service operate, it is not feasible to prepare one management plan for both the Charles M. Russell National Wildlife Refuge and the public lands included in the ES area. Where specific resource objectives on refuge lands and adjacent BLM lands are compatible, cooperative grazing management will be sought. Where specific resource objectives between the two agencies differ, allotment management plans will be implemented only when it has been determined by the BLM that such action will not waste dollars or manpower or foreclose future options for cooperation with the Fish and Wildlife Service. Because of different management mandates between the two agencies, it may be necessary to physically separate the two jurisdictions in selected areas. The management plan for the refuge is scheduled for completion in mid-1980. When the refuge management plan is complete, and specific management plans are identified by area on the refuge, cooperation between the two agencies can more fully occur.

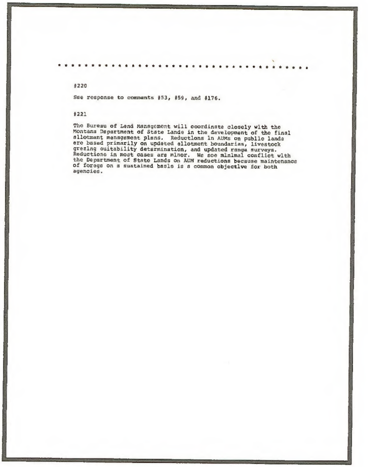
#218

The 30 and 40 percent allocation levels for livestock use are very general estimates for the riverbreaks and rolling plains landforms, respectively. Tables A1-1 and A1-2 show the variability between range sites in rationalizing vegetation allocation levels. Future vegetation allocations to livestock and other competing uses will be made on an allotment basis with full regard to the variability in production for each range site and guidance provided in current management framework plans. At this point, we are projecting about a 30-40 percent allocation level for livestock use, except in sensitive areas as identified in individual management framework plans.

#219

Direct livestock grazing AUM allocations or changes in allocation on state or private lands are not encompassed under the authority of the Bureau of Land Management. Because of changes in allocation on public lands within individual allotments, however, indirect shift in livestock use on other land might result. For example, creation of water developments or range improvement on public lands would also benefit other lands within the same fenced unit through redistribution of livestock grazing use.

Implementation of AMPs occurs only after consultation with all parties involved, including operators and landowners.



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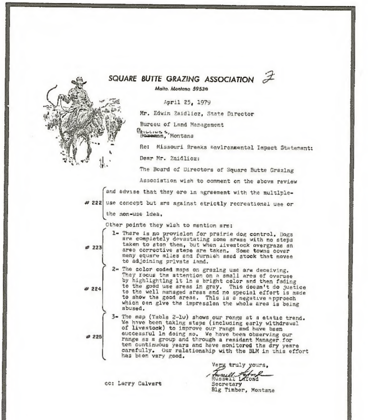
#220

See response to comments #53, #59, and #176.

#221

The Bureau of Land Management will coordinate closely with the Montana Department of State Lands in the development of the final allotment management plans. Reductions in AUMs on public lands are based primarily on updated allotment boundaries, livestock grazing suitability determination, and updated range surveys. Reductions in most cases are minor. We see minimal conflict with the Department of State Lands on AUM reductions because maintenance of forage on a sustained basis is a common objective for both agencies.



SQUARE BUTTE GRAZING ASSOCIATION 3
Malta, Montana 59538

April 25, 1979

Mr. Edwin Zaidlicz, State Director
Bureau of Land Management
~~Bozeman~~ Billings, Montana

Re: Missouri Breaks Environmental Impact Statement:

Dear Mr. Zaidlicz:

The Board of Directors of Square Butte Grazing Association wish to comment on the above review

# 222 and advise that they are in agreement with the multiple-use concept but are against strictly recreational use or the non-use idea.

Other points they wish to mention are:

# 223 1- There is no provision for prairie dog control. Dogs are completely devastating some areas with no steps taken to stop them, but when livestock overgraze an area corrective steps are taken. Some towns cover many square miles and furnish seed stock that moves to adjoining private land.

# 224 2- The color coded maps on grazing use are deceiving. They focus the attention on a small area of overuse by highlighting it in a bright color and then fading to the good use areas in grey. This doesn't do justice to the well managed areas and no special effort is made to show the good areas. This is a negative approach which can give the impression the whole area is being abused.

# 225 3- The map (Table 2-10) shows our range at a static trend. We have been taking steps (including early withdrawal of livestock) to improve our range and have been successful in doing so. We have been observing our range as a group and through a resident Manager for ten continuous years and have monitored the dry years carefully. Our relationship with the BLM in this effort has been very good.

Very truly yours,

Russell Lafond
Russell Lafond
Secretary
Big Timber, Montana

cc: Larry Calvert

* *

RESPONSE TO SQUARE BUTTE GRAZING ASSOCIATION

#222

See response to comment #19.

#223

See response to comment #3.

#224

We assume that this comment refers to Map 2-5 in the DES. The scale of the maps used in the DES did not allow the mapping of range condition for all allotments included in the proposed action. This information is mapped in each individual allotment management plan. Because Map 2-5 was somewhat misleading, it should be deleted from the DES. See the response to comment #13.

#225

Precipitation during 1976 and 1977 was substantially below normal over most of the area. This was also the period when most of the existing allotment management plans were evaluated. Under these conditions, static range conditions would appear to be satisfactory. If, however, static conditions continue over a series of favorable precipitation years, then it would appear that a change in management is indicated.

United States Department of the Interior

HERITAGE CONSERVATION AND RECREATION SERVICE
MID-CONTINENT REGION
DENVER, COLORADO 80225
MAILING ADDRESS:
Post Office Box 25387
Denver Federal Center
Denver, Colorado 80225

IN REPLY REFER TO:
DES 79-10

APR 27 1979

Memorandum

To: State Director, Bureau of Land Management, Billings, Montana

From: Assistant Regional Director, Land Use Coordination

Subject: Review of draft environmental statement on grazing management in the Missouri Breaks of Montana

226 The final statement should recognize the existence of six potential and two designated National Natural Landmarks which are located within or adjacent to several of the allotments being considered in this document. Three of the potential Landmarks (White Cliffs of the Missouri, Eagle Rock, and Cathedral Rock) are located along the Missouri River and include portions of Allotments 9838, 9653, 6215, and 9839. The UL Bend and Charles M. Russell National Wildlife Refuges are potential Landmarks adjacent to numerous allotments. Square Butte, which includes Allotment 9783, has been recommended as a Landmark. The Hell Creek and Bug Creek Fossil Areas are the two designated Landmarks. The boundaries of the Hell Creek Fossil Area encompass all of T21N, R37E, and the eastern half of T21N, R36E (portions of Allotments 2211, 2085, 2342, and 2020). The Bug Creek Fossil Area is within the Charles M. Russell National Wildlife Refuge, but adjacent to Allotment 2058. We recommend that the final statement describe the impacts, if any, on these designated and potential Landmarks which will result from implementation of the selected grazing management plan.

227 Two areas on the Missouri River which have been developed with matching assistance from the Land and Water Conservation Fund appear to be located within grazing allotments. These areas are:

Slaughter River. 42 Acres. Lot 13, Section 31, T. 23 N., R. 15 E., Chouteau County (Allotment 6217)

Cow Island Landing. 21 Acres. Lot 15, Section 6, T. 23 N., R. 22 E., Blaine County (Allotment 5609).

Development costs for both sites included fencing, so that grazing is probably excluded from the recreation areas. However, if the selected plan will effect these sites, the impacts should be described in the final statement.

228 We have also reviewed the statement for its discussion of historic and archeological resources. We note the extensive work in identifying these resources, particularly archeological sites, through the use of predictive surveys for the planning units. In general, we agree with the recommendations for future BLM action, including mitigation plans for historic and archeological resources. However, we believe the statement needs additional work in several areas.

First, it is apparent from the discussion in Chapter 2, including Tables 2-13, 2-14, and 2-15, that more information is needed on archeological site densities and variations in density associated with environmental factors. The South Bearpaw Planning Unit (P.U.) was the only unit sampled in environmentally determined strata; the resultant varying density information should be used in planning further project-specific or other survey work. The data on higher site density in grasslands here (1.25) is suggestive; we might ask, for example, whether McCone P.U.'s higher density of sites (3.73) is correlated with the high percentage of rolling grassland in the unit (see maps 1-3 and 2-4).

More information should be compiled, and if possible, included in the final statement on site locations in relation to water resources. It is obvious that flowing water, intermittent streams, and springs are crucial to the livestock management proposals; these are areas that will have increased development and increased livestock trampling. Provisions for considerable survey work in the vicinity of new proposed stock water reservoirs should also be made, not only for the impacts of the reservoirs themselves, but also for the increases in stock traffic in the vicinity of each reservoir.

The final statement should include results of any additional archeological and historic resource identification work, further information that might be available concerning the effects of livestock trampling or archeological surface remains, provisions for evaluation of the significance of already identified resources, and a brief description of the BLM requirements for "detailed site inventories . . . prior to initiation of ground disturbance . . ." (3-25).

Robert J. Arkins

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* *

RESPONSE TO THE HERITAGE CONSERVATION AND RECREATION SERVICE

#226

The proposed grazing management program is not expected to have a significant impact on the six potential National Natural Landmarks. The White Cliffs of the Missouri, Eagle Rock, and Cathedral Rock are within the Upper Missouri Wild and Scenic River, in a segment classified as wild. Therefore, protection of these scenic resources under the mandates of the Wild and Scenic Rivers Act will occur regardless of future designations. BLM has no administrative responsibility for the Charles M. Russell or U.L. Bend National Wildlife Refuges (including the Bug Creek Fossil Area) and no portions of the proposal would jeopardize designation of the areas as National Natural Landmarks. Square Butte is an existing BLM Outstanding Natural Area being studied for potential wilderness status (see pages 2-66 and 3-31 of the DES). This area is provided management protection because of its existing designation.

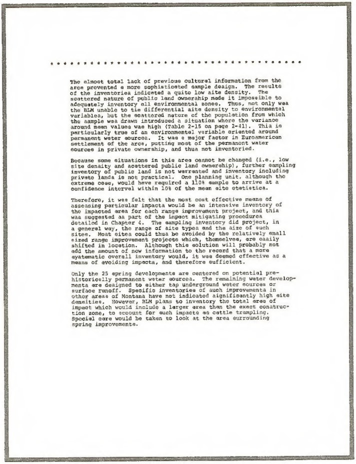
Three of the four allotment management plans (AMPs) in the vicinity of the Hell Creek Fossil Area include no proposals for range improvements. The McDonald AMP (#2211) proposes one mile of fence, one well, and five miles of water pipeline. Because of the small size of the ground disturbance involved in the range improvements (3.7 acres), the Hell Creek Fossil Area (nearly 35,000 acres) would not be significantly impacted by the proposal. See item 11, page A-27 of the DES for the procedures used for areas with scientifically significant fossils.

#227

The Slaughter River State Campsite and the Cow Island Landing are recreation sites administered by the Montana Department of Fish and Game. Both areas are excluded from livestock grazing. The proposed action will have no significant effect on these areas.

#228

The sampling-type archaeological inventories in the ES area were, with the exception of the Missouri River bottomlands, the first systematic inventories done in this portion of Montana. Thus, there was total lack of information on which to base any expectations of the outcome of the inventories. A further complication was the scattered public ownership of the lands any distance from the Missouri Breaks proper. Map 1-3, following page 1-8, shows the landforms present in the ES area and the extent outside of the riverbreaks; and Map 2-22, following page 2-86, shows the scattered nature of public land ownership.



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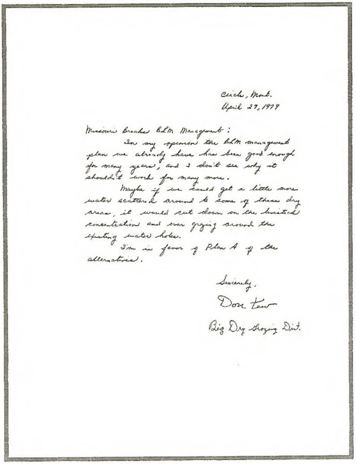
The almost total lack of previous cultural information from the area prevented a more sophisticated sample design. The results of the inventories indicated a quite low site density. The scattered nature of public land ownership made it impossible to adequately inventory all environmental zones. Thus, not only was the BLM unable to tie differential site density to environmental variables, but the scattered nature of the population from which the sample was drawn introduced a situation where the variance around mean values was high (Table 2-15 on page 2-41). This is particularly true of an environmental variable oriented around permanent water sources. It was a major factor in Euroamerican settlement of the area, putting most of the permanent water sources in private ownership, and thus not inventoried.

Because some situations in this area cannot be changed (i.e., low site density and scattered public land ownership), further sampling inventory of public land is not warranted and inventory including private lands is not practical. One planning unit, although the extreme case, would have required a 110% sample to arrive at a confidence interval within 10% of the mean site statistics.

Therefore, it was felt that the most cost effective means of assessing particular impacts would be an intensive inventory of the impacted area for each range improvement project, and this was suggested as part of the impact mitigating procedures detailed in Chapter 4. The sampling inventory did project, in a general way, the range of site types and the size of such sites. Most sites could thus be avoided by the relatively small sized range improvement projects which, themselves, are easily shifted in location. Although this solution will probably not add the amount of new information to the record that a more systematic overall inventory would, it was deemed effective as a means of avoiding impacts, and therefore sufficient.

Only the 25 spring developments are centered on potential prehistorically permanent water sources. The remaining water developments are designed to either tap underground water sources or surface runoff. Specific inventories of such improvements in other areas of Montana have not indicated significantly high site densities. However, BLM plans to inventory the total area of impact which would include a larger area than the exact construction zone, to account for such impacts as cattle trampling. Special care would be taken to look at the area surrounding spring improvements.



Circle, Mont.
April 27, 1979

Missouri Breaks BLM Management:

In my opinion the BLM management plan we already have has been good enough for many years, and I don't see why it shouldn't work for many more.

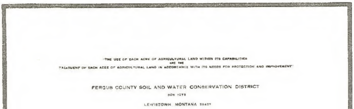
Maybe if we could get a little more water scattered around to some of these dry areas, it would cut down on the livestock consentration and over grazing around the existing water holes.

I'm in favor of Plan A of the alternatives.

Sincerely,

Don Tew

Big Dry Grazing Dist.



"THE USE OF EACH ACRE OF AGRICULTURAL LAND WITHIN ITS CAPABILITIES
AND THE
TREATMENT OF EACH ACRE OF AGRICULTURAL LAND IN ACCORDANCE WITH ITS NEEDS FOR PROTECTION AND IMPROVEMENT"

FERGUS COUNTY SOIL AND WATER CONSERVATION DISTRICT
BOX 1278
LEWISTOWN MONTANA 59457

April 12, 1979

Montana State Director
Bureau of Land Management
222 North 32nd Street
P. O. Box 30107
Billings, Mt. 59107

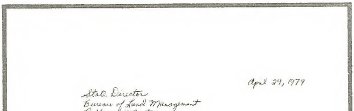
Dear Gentleman:

The Fergus County Conservation District would like to go on record as favoring no action in regard to the Draft EIS on grazing in Montana's Missouri Breaks. We would like to see a continuation of the present program.

FERGUS COUNTY CONSERVATION DISTRICT

William J. Trapp
Loren Comer
Lyle E. McKenna
David E. Bricker

Lorn J. Wallace



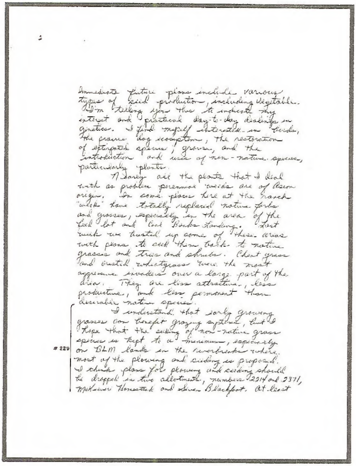
April 29, 1979

State Director
Bureau of Land Management
Billings, Montana

Dear Mr Zuidlicz,

I have spent many hours reading and browsing through the draft environmental statement on grazing in the Missouri Breaks. I have done a lot of thinking about your proposals and I have sought to understand land use in the Missouri Breaks from different perspectives. In my life I have come to think of the Fort Benton to Fort Peck corridor as a special place. I was born in the badlands south of the Missouri near Wolf Point and have recently moved across the river to the bottoms at Virgelle. I feel serious about development plans for the area. I have plans of my own for the ranch and area and hope my comments and perspectives can help you with your planning.

First I want to talk about me a bit. I was born on a wheat and cattle ranch. When I was a kid I always wanted to build a zoo or work in a zoo. I studied zoology in college but gave it up for a family and to be on the farm. A few years ago I established my own tree nursery. I need to apply for a state license to propagate wild animals. We're producing wheat, cattle, sheep, horses, and hay on the ranch here.



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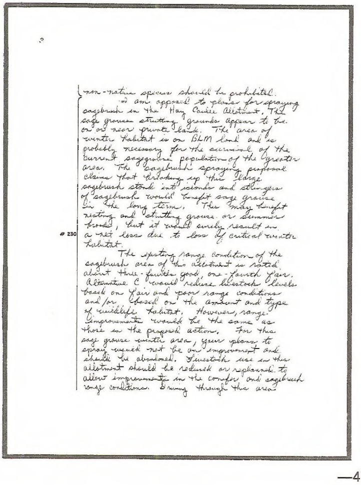
Immediate future plans include various types of seed production, including vegetables. I'm telling you this to indicate my interest and practical day-to-day dealings in genetics. I find myself interested in birds, the prairie dog ecosystem, the restoration of extirpated species, grouse, and the introduction and use of non-native species, particularly plants.

Nearly all the plants that I deal with as problem perennial weeds are of Asian origin. In some places here at the ranch "weeds" have totally replaced native forbs and grasses, especially in the area of the feed lot and Coal Banks Landing. Last week we busted up some of these areas with plans to seed them back to native grasses and trees and shrubs. Cheat grass and crested wheatgrass were the most aggressive invaders over a large part of the area. They are less attractive, less productive, and less permanent than desirable native species.

229 I understand that early growing grasses can benefit grazing systems, but I hope that the seeding of non-native grass species is kept to a minimum, especially on BLM lands in the riverbreaks where most of the plowing and seeding is proposed. I think plans for plowing and seeding should be dropped in two allotments, numbers 2214 and 2371, McKeever Homestead and Lower Blackfoot. At least



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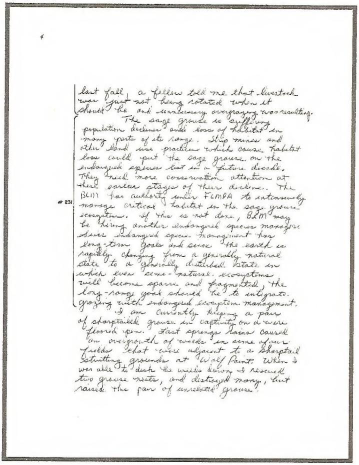
non-native species should be prohibited.

230 I am opposed to plans for spraying sagebrush in the Hay Coulee Allotment. The sage grouse strutting grounds appear to be on or near private land. The area of winter habitat is on BLM land and is probably necessary for the survival of the current sagegrouse population of the greater area. The sagebrush spraying proposal claims that breaking up this large sagebrush stand into islands and stringers of sagebrush would benefit sage grouse in the long term. This may benefit nesting and strutting grouse or summer broods, but it would surely result in a net loss due to loss of critical winter habitat.

The existing range condition of the sagebrush area of this allotment is rated about three-fourths good, one-fourth fair. Alternative C would reduce livestock levels based on fair and poor range conditions and/or based on the amount and type of wildlife habitat. However, range improvements would be the same as those in the proposed action. For this sage grouse winter area, your plans to spray would not be an improvement and should be abandoned. Livestock use in this allotment should be reduced or replanned to allow improvements in the conifer and sagebrush range conditions. Driving through this area



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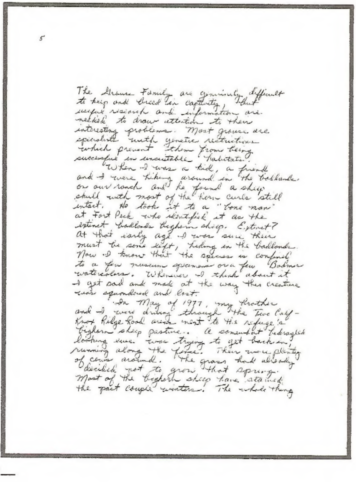
last fall, a fellow told me that livestock was just not being rotated when it should be and unnecessary overgrazing was resulting.

231 The sage grouse is suffering population declines and loss of habitat in many parts of its range. Strip mines and other land use practices which cause habitat loss could put the sage grouse on the endangered species list in a future decade. They need more conservation attention at these earlier stages of their decline. The BLM has authority under FLMPA to intensively manage critical habitat in the sage grouse ecosystem. If this is not done, BLM may be hiring another endangered species manager. Since endangered species management has long-term goals and since the earth is rapidly changing from a generally natural state to a generally disturbed state in which even semi-natural ecosystems will become sparse and fragmented, the long-range goal should be to integrate grazing with endangered ecosystem management.

I am currently keeping a pair of sharptailed grouse in captivity on a wire floored pen. Last springs rains caused an overgrowth of weeds in some of our fields that were adjacent to a Sharptail strutting grounds at Wolf Point. When I was able to disk the weeds down I rescued two grouse nests, and destroyed many, but raised the pair of unrelated grouse.



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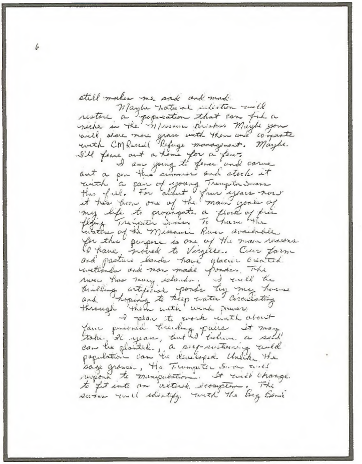
The Grouse Family are genuinely difficult to keep and breed in captivity, but useful research and information are needed to draw attention to their interesting problems. Most grouse are specialists with genetic restrictions which prevent them from being successful in unsuitable habitats.

When I was a kid, a friend and I were hiking around in the badlands on our ranch and he found a sheep skull with most of the horn curls still intact. He took it to a "bone man" at Fort Peck who identified it as the extinct badlands bighorn sheep. Extinct? At that early age I was sure there must be some left, hiding in the badlands. Now I know that the species is confined to a few museum specimens or a few Bodmer watercolors. Whenever I think about it I get sad and mad at the way this creature was squandered and lost.

In May of 1977, my brother and I were driving through the Two Calf-Knox Ridge Road area next to the refuge's bighorn sheep pasture. A somewhat bedraggled looking ewe was trying to get back in, running along the fence. There were plenty of cows around. The grass had already decided not to grow that spring. Most of the bighorn sheep have starved the past couple winters. The whole thing



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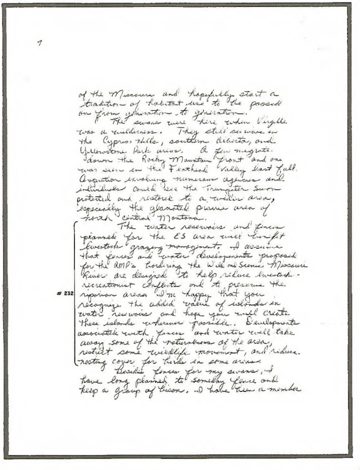
still makes me sad and mad.

Maybe natural selection will restore a population that can find a niche in the Missouri Breaks. Maybe you will share more grass with them and cooperate with CM Russell Refuge management. Maybe I'll fence out a home for a few.

I am going to fence and carve out a pen this summer and stock it with a pair of young Trumpeter Swans this fall. For about four years now it has been one of the main goals of my life to propagate a flock of free flying Trumpeter Swans. To have the waters of the Missouri River available for this purpose is one of the main reasons I have moved to Virgelle. Our farm and pasture lands have glacier created wetlands and man made ponds. The river has many islands. I will be building artificial ponds by my house and hoping to keep water circulating through them with wind power.

I plan to work with about four pinioned breeding pairs. It may take 20 years, but I believe a seed can be planted, a self-sustaining wild population can be developed. Unlike the sage grouse, the Trumpeter Swan will respond to manipulation. It will change to fit into an altered ecosystem. The swans will identify with the Big Bend



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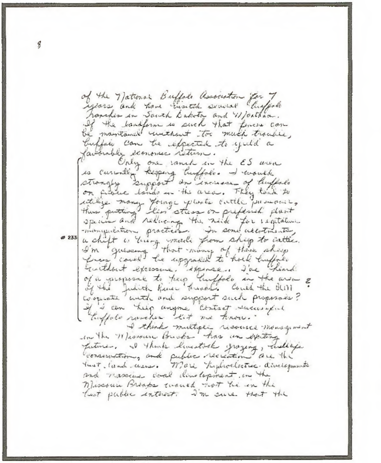
of the Missouri and hopefully start a tradition of habitat use to be passed on from generation to generation.

The swans were here when Virgelle was a wilderness. They still survive in the Cypress Hills, southern Alberta, and Yellowstone Park areas. A few migrate down the Rocky Mountain front and one was seen in the Flathead Valley last fall. Cooperation involving numerous agencies and individuals could see the Trumpeter Swan protected and restored to a wider area, especially the glaciated prairie area of north central Montana.

232

The water reservoirs and fences planned for the ES area will benefit livestock grazing management. I assume that fences and water developments proposed for the AMP's bordering the Wild and Scenic Missouri River are designed to help reduce livestock-recreationist conflicts and to preserve the riparian areas. I'm happy that you recognize the added value of islands in water reservoirs and hope you will create these islands wherever possible. Developments associated with fences and water will take away some of the naturalness of the area, restrict some wildlife movement, and reduce nesting cover for birds in some areas.

Besides fences for my swans, I have long planned to someday fence and keep a group of bison. I have been a member



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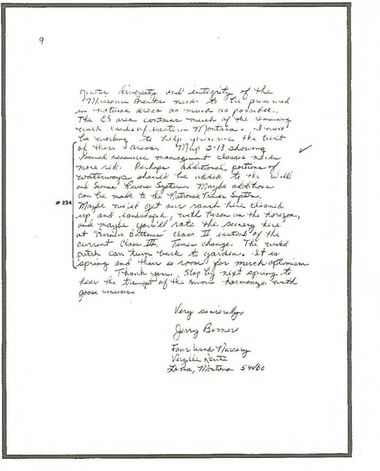
of the National Buffalo Association for 7 years and have visited several buffalo ranches in South Dakota and Montana. If the landform is such that fences can be maintained without too much trouble, buffalo can be expected to yield a favorable economic return.

233

Only one ranch in the ES area is currently keeping buffalo. I would strongly support an increase of buffalo on public lands in the area. They tend to utilize many forage plants cattle pass over, thus putting less stress on preferred plant species and reducing the need for vegetation-manipulation practices. In some allotments, a shift is being made from sheep to cattle. I'm guessing that many of these sheep fences could be upgraded to hold buffalo without excessive expense. I've heard of a proposal to keep buffalo in the area of the Judith River breaks. Could the BLM cooperate with and support such proposals? If I can help anyone contact successful buffalo ranchers let me know.

?

I think multiple resource management in the Missouri Breaks has an exciting future. I think livestock grazing, wildlife conservation, and public recreation are the best land uses. More hydroelectric developments and massive coal development in the Missouri Breaks would not be in the best public interest. I'm sure that the



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genetic diversity and integrity of the Missouri Breaks needs to be preserved in natural areas as much as possible. The ES area contains much of the remaining wild lands of eastern Montana. I will be working to help preserve the best

234

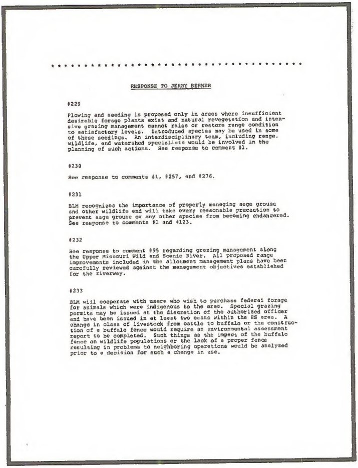
of these areas. Map 2-13 showing visual resource management classes needs more red. Perhaps additional portions of waterways should be added to the Wild and Scenic Rivers System. Maybe additions can be made to the National Trails System. Maybe we'll get our ranch here cleaned up and landscaped, with bison on the horizon, and maybe you'll rate the scenery here at "Bernie's Bottoms" Class II instead of the current Class III. Times change. The weed patch can turn back to garden. It is spring and there is room for much optimism. ✓

Thank you. Stop by next spring to hear the trumpet of the swans harmonize with goose music.

Very sincerely,

Jerry Berner

Four Winds Nursery
Virgelle Route
Loma, Montana 59460



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RESPONSE TO JERRY BERNER

#229

Plowing and seeding is proposed only in areas where insufficient desirable forage plants exist and natural revegetation and intensive grazing management cannot raise or restore range condition to satisfactory levels. Introduced species may be used in some of these seedings. An interdisciplinary team, including range, wildlife, and watershed specialists would be involved in the planning of such actions. See response to comment #1.

#230

See response to comments #1, #257, and #276.

#231

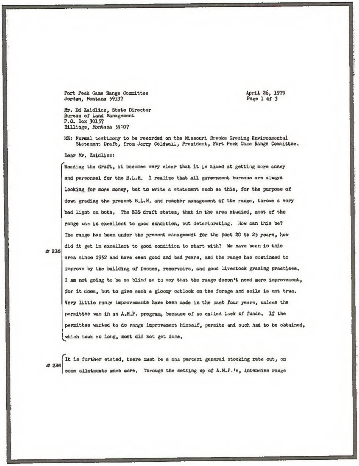
BLM recognizes the importance of properly managing sage grouse and other wildlife and will take every reasonable precaution to prevent sage grouse or any other species from becoming endangered. See response to comments #1 and #123.

#232

See response to comment #95 regarding grazing management along the Upper Missouri Wild and Scenic River. All proposed range improvements included in the allotment management plans have been carefully reviewed against the management objectives established for the riverway.

#233

BLM will cooperate with users who wish to purchase federal forage for animals which were indigenous to the area. Special grazing permits may be issued at the discretion of the authorized officer and have been issued in at least two cases within the ES area. A change in class of livestock from cattle to buffalo or the construction of a buffalo fence would require an environmental assessment report to be completed. Such things as the impact of the buffalo fence on wildlife populations or the lack of a proper fence resulting in problems to neighboring operations would be analyzed prior to a decision for such a change in use.



Fort Peck Game Range Committee
Jordan, Montana 59337

April 26, 1979
Page 1 of 3

Mr. Ed Zaidlics, State Director
Bureau of Land Management
P.O. Box 30157
Billings, Montana 59107

RE: Formal testimony to be recorded on the Missouri Breaks Grazing Environmental Statement Draft, from Jerry Coldwell, President, Fort Peck Game Range Committee.

Dear Mr. Zaidlics:

# 235 Reading the draft, it becomes very clear that it is aimed at getting more money and personnel for the B.L.M. I realize that all government bureaus are always looking for more money, but to write a statement such as this, for the purpose of down grading the present B.L.M. and rancher management of the range, throws a very bad light on both. The EIS draft states, that in the area studied, most of the range was in excellent to good condition, but deteriorating. How can this be? The range has been under the present management for the past 20 to 25 years, how did it get in excellent to good condition to start with? We have been in this area since 1952 and have seen good and bad years, and the range has continued to improve by the building of fences, reservoirs, and good livestock grazing practices. I am not going to be so blind as to say that the range doesn't need more improvement, for it does, but to give such a gloomy outlook on the forage and soils is not true. Very little range improvements have been made in the past four years, unless the permittee was in an A.M.P. program, because of so called lack of funds. If the permittee wanted to do range improvement himself, permits and such had to be obtained, which took so long, most did not get done.

# 236 It is further stated, there must be a one percent general stocking rate cut, on some allotments much more. Through the setting up of A.M.P.'s, intensive range

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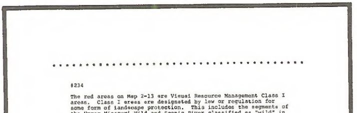

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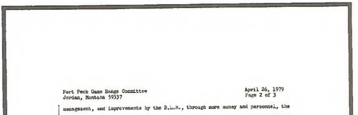
#234

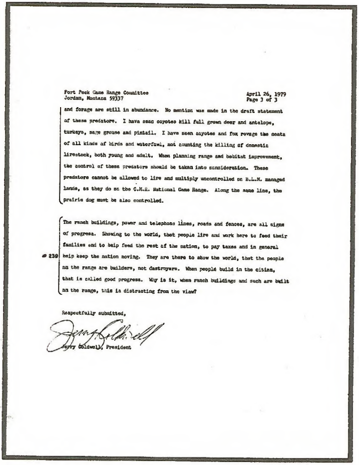
The red areas on Map 2-13 are Visual Resource Management Class I areas. Class I areas are designated by law or regulation for some form of landscape protection. This includes the segments of the Upper Missouri Wild and Scenic River classified as "wild" in accordance with the criteria of the Wild and Scenic River Act. River segments classified as "scenic" fall into Class II. Both classes establish protection of scenery quality as a high priority management goal.



management, and improvements by the B.L.M., through more money and personnel, the draft projects by the year 2000, all will be well and good again. The permittees must take this stocking rate cut on his income, waiting for Congress to give money to the B.L.M. to build fences, reservoirs, drill wells and make other range improvements, which I personally don't believe is forthcoming at this time, due to inflation and with Congress and the President being so tax and spending conscious. I believe the range improvements should come as the funding does, not cut the stocking rate and then wait for the funding.

# 237 A.M.P.'s to be set up on the permits along the C.M.R. National Game Range cannot be made workable, without some agreement with the Fish and Wildlife Service on standardization of the stocking rates on each side of a map drawn line. At the present time, the permit holders are forced to deal with B.L.M., which is a multiple use type management with one stocking rate, and Fish and Wildlife Service, which is a single use program of wildlife with livestock grazing as a tool to harvest extra forage, at another stocking rate. Due to the rough terrain of the area along the C.M.B. boundary, fencing and maintaining the fences would be impossible. With the present Fish and Wildlife Service policies, it is uneconomical for the permit holders to put money into range improvements on A.M.P. pastures containing Fish and Wildlife Service lands.

# 238 In the past 30 years, I have seen a great boom in all wildlife and waterfowl population. In the past 10 years, I have seen the game and game bird population drastically reduced because of heavy hunting and predator pressures. The habitat



Fort Peck Game Range Committee
Jordan, Montana 59337

April 26, 1979
Page 3 of 3

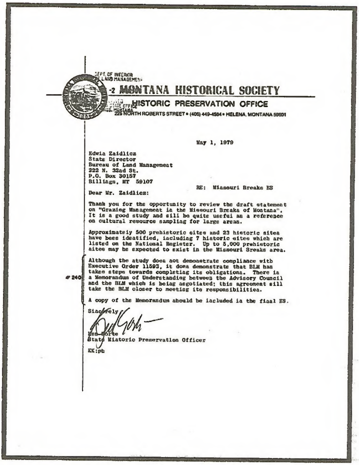
and forage are still in abundance. No mention was made in the draft statement of these predators. I have seen coyotes kill full grown deer and antelope, turkeys, sage grouse and pintail. I have seen coyotes and fox ravage the nests of all kinds of birds and waterfowl, not counting the killing of domestic livestock, both young and adult. When planning range and habitat improvement, the control of these predators should be taken into consideration. These predators cannot be allowed to live and multiply uncontrolled on B.L.M. managed lands, as they do on the C.M.R. National Game Range. Along the same line, the prairie dog must be also controlled.

# 239 The ranch buildings, power and telephone lines, roads and fences, are all signs of progress. Showing to the world, that people live and work here to feed their families and to help feed the rest of the nation, to pay taxes and in general help keep the nation moving. They are there to show the world, that the people on the range are builders, not destroyers. When people build in the cities, that is called good progress. Why is it, when ranch buildings and such are built on the range, this is distracting from the view?

Respectfully submitted,

Jerry Coldwell

Jerry Coldwell, President



DEPT. OF INTERIOR
LAND MANAGEMENT
-2
STATE OFFICE
BILLINGS, MONTANA

MONTANA HISTORICAL SOCIETY
HISTORIC PRESERVATION OFFICE
225 NORTH ROBERTS STREET • (406) 449-4584 • HELENA, MONTANA 59601

May 1, 1979

Edwin Zaidlicz
State Director
Bureau of Land Management
222 N. 32nd St.
P.O. Box 30157
Billings, MT 59107

RE: Missouri Breaks ES

Dear Mr. Zaidlicz:

Thank you for the opportunity to review the draft statement on "Grazing Management in the Missouri Breaks of Montana". It is a good study and will be quite useful as a reference on cultural resource sampling for large areas.

Approximately 500 prehistoric sites and 23 historic sites have been identified, including 7 historic sites which are listed on the National Register. Up to 5,000 prehistoric sites may be expected to exist in the Missouri Breaks area.

# 240 Although the study does not demonstrate compliance with Executive Order 11593, it does demonstrate that BLM has taken steps towards completing its obligations. There is a Memorandum of Understanding between the Advisory Council and the BLM which is being negotiated; this agreement will take the BLM closer to meeting its responsibilities.

A copy of the Memorandum should be included in the final ES.

Sincerely,

Ken Korte
State Historic Preservation Officer

KK:pb

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* * *

RESPONSE TO THE FORT PECK GAME RANGE COMMITTEE

#235

We certainly recognize that there has been substantial improvement during the past 20 to 25 years as you have stated. This has been the result of better grazing management practices along with project development such as fences and reservoirs. There is, as you note, much more that could be done. Alternative A assumes, however, that no further range improvement projects or better grazing management practices would be allowed.

See response to comments #53 and #59.

#236

See response to comment #141.

#237

We recognize the difficulty faced by livestock operators who operate on BLM land adjacent to the Charles M. Russell National Wildlife Refuge. Additional coordination between the operators, the BLM, and the U.S. Fish and Wildlife Service will occur prior to implementation of AMPs along the boundaries. See response to comment #23.

#238

See response to comments #3, #4, and #5.

#239

See response to comment #50.

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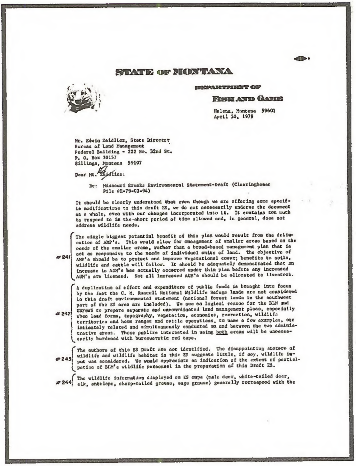
* * *

RESPONSE TO THE MONTANA HISTORICAL SOCIETY

#240

The proposed Memorandum of Agreement, which will be between the Bureau of Land Management and two other parties, the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers, is included as part of these public comments (see response to comment #295). When the agreement becomes final, the Bureau of Land Management will comply with its terms. The Bureau has already committed in this document (see page 4-2 and Appendix 3, page A-27) to a course of action which would comply with implementation stipulations in the Memorandum of Agreement, namely an intensive inventory of each range improvement involving land disturbance, and compliance with Section 106 of the National Historic Preservation Act for sites which would be impacted by the land disturbance.



STATE OF MONTANA
DEPARTMENT OF
FISH AND GAME
Helena, Montana 59601
April 30, 1979

Mr. Edwin Zaidlicz, State Director
Bureau of Land Management
Federal Building - 222 No. 32nd St.
P. O. Box 30157
Billings, Montana 59107

Dear Mr. Zaidlicz:

Re: Missouri Breaks Environmental Statement-Draft (Clearinghouse File #E-79-03-94)

It should be clearly understood that even though we are offering some specific modifications to this draft ES, we do not necessarily endorse the document as a whole, even with our changes incorporated into it. It contains too much to respond to in the short period of time allowed and, in general, does not address wildlife needs.

#241 The single biggest potential benefit of this plan would result from the delineation of AMP's. This would allow for management of smaller areas based on the needs of the smaller areas, rather than a broad-based management plan that is not as responsive to the needs of individual units of land. The objective of AMP's should be to protect and improve vegetational cover; benefits to soils, wildlife and cattle will follow. It should be adequately demonstrated that an increase in AUM's has actually occurred under this plan before any increased AUM's are licensed. Not all increased AUM's should be allocated to livestock.

#242 A duplication of effort and expenditure of public funds is brought into focus by the fact the C. M. Russell National Wildlife Refuge lands are not considered in this draft environmental statement (national forest lands in the southwest part of the ES area are included). We see no logical reason for the BLM and USF&WS to prepare separate and uncoordinated land management plans, especially when land forms, topography, vegetation, economics, recreation, wildlife territories and home ranges and cattle operations, to name a few examples, are intimately related and simultaneously conducted on and between the two administrative areas. Those publics interested in using both areas will be unnecessarily burdened with bureaucratic red tape.

#243 The authors of this ES Draft are not identified. The disappointing stature of wildlife and wildlife habitat in this ES suggests little, if any, wildlife input was considered. We would appreciate an indication of the extent of participation of BLM's wildlife personnel in the preparation of this Draft ES.

#244 The wildlife information displayed on ES maps (mule deer, white-tailed deer, elk, antelope, sharp-tailed grouse, sage grouse) generally correspond with the

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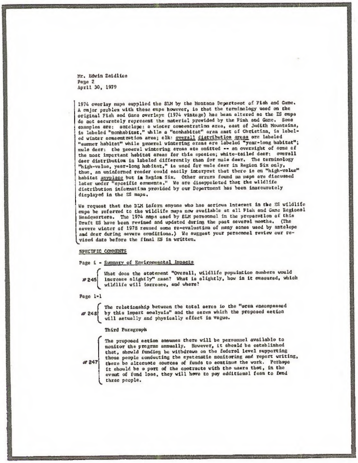

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1974 overlay maps supplied the BLM by the Montana Department of Fish and Game. A major problem with these maps however, is that the terminology used on the original Fish and Game overlays (1974 vintage) has been altered so the ES maps do not accurately represent the material provided by the Fish and Game. Some examples are: antelope: a winter concentration area, east of Judith Mountains, is labeled "nonhabitat," while a "nonhabitat" area east of Christina, is labeled winter concentration area; elk: overall distribution areas are labeled "summer habitat" while general wintering areas are labeled "year-long habitat"; mule deer: the general wintering areas are omitted -- an oversight of some of the most important habitat areas for this species; white-tailed deer: overall deer distribution is labeled differently than for mule deer. The terminology "high-value, year-long habitat," is used for mule deer in Region Six only, thus, an uninformed reader could easily interpret that there is no "high-value" habitat anyplace but in Region Six. Other errors found on maps are discussed later under "specific comments." We are disappointed that the wildlife distribution information provided by our Department has been inaccurately displayed in the ES maps.

We request that the BLM inform anyone who has serious interest in the ES wildlife maps be referred to the wildlife maps now available at all Fish and Game Regional Headquarters. The 1974 maps used by BLM personnel in the preparation of this Draft ES have been revised and updated during the past several months. (The severe winter of 1978 caused some re-evaluation of many areas used by antelope and deer during severe conditions.) We suggest your personnel review our revised data before the final ES is written.

SPECIFIC COMMENTS

Page i - Summary of Environmental Impacts

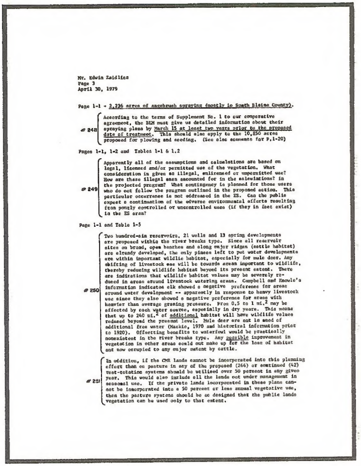
#245 What does the statement "Overall, wildlife population numbers would increase slightly" mean? What is slightly, how is it measured, which wildlife will increase, and where?

Page 1-1

#246 The relationship between the total acres in the "area encompassed by this impact analysis" and the acres which the proposed action will actually and physically affect is vague.

Third Paragraph

#247 The proposed action assumes there will be personnel available to monitor the program annually. However, it should be established that, should funding be withdrawn on the federal level supporting those people conducting the systematic monitoring and report writing, there be alternate sources of funds to continue the work. Perhaps it should be a part of the contracts with the users that, in the event of fund loss, they will have to pay additional fees to fund these people.



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Page 1-1 - 2,236 acres of sagebrush spraying (mostly in South Blaine County).

#248 According to the terms of Supplement No. 1 to our cooperative agreement, the BLM must give us detailed information about their spraying plans by March 15 at least two years prior to the proposed date of treatment. This should also apply to the 10,850 acres proposed for plowing and seeding. (See also comments for P.1-20)

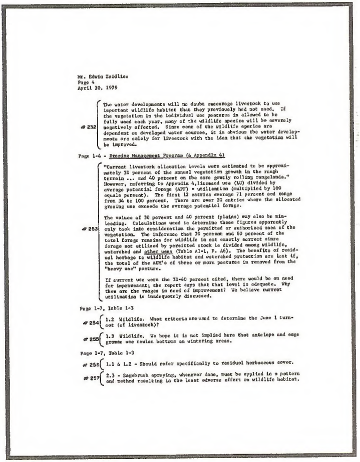
Pages 1-1, 1-2 and Tables 1-1 & 1.2

#249 Apparently all of the assumptions and calculations are based on legal, licensed and/or permitted use of the vegetation. What consideration is given to illegal, unlicensed or unpermitted use? How are these illegal uses accounted for in the calculations? in the projected program? What contingency is planned for those users who do not follow the program outlined in the proposed action. This particular occurrence is not addressed in the ES. Can the public expect a continuation of the adverse environmental effects resulting from poorly controlled or uncontrolled uses (if they in fact exist) in the ES area?

Page 1-1 and Table 1-5

#250 Two hundred-six reservoirs, 21 wells and 13 spring developments are proposed within the river breaks type. Since all reservoir sites on broad, open benches and along major ridges (cattle habitat) are already developed, the only places left to put water developments are within important wildlife habitat, especially for mule deer. Any shifting of livestock use will be towards areas important to wildlife, thereby reducing wildlife habitat beyond its present extent. There are indications that wildlife habitat values may be severely reduced in areas around livestock watering areas. Campbell and Knowle's information indicates elk showed a negative preference for areas around water development -- apparently in response to heavy livestock use since they also showed a negative preference for areas with heavier than average grazing pressure. From 0.5 to 1 mi.^{2} may be affected by each water source, especially in dry years. This means that up to 240 mi.^{2} of additional habitat will have wildlife values reduced beyond the present level. Mule deer are not in need of additional free water (Mackie, 1970 and historical information prior to 1920). Offsetting benefits to waterfowl would be practically nonexistent in the river breaks type. Any possible improvement in vegetation in other areas could not make up for the loss of habitat not now occupied to any major extent by cattle.

#251 In addition, if the CMR lands cannot be incorporated into this planning effort then no pasture in any of the proposed (266) or continued (42) rest-rotation systems should be utilized over 50 percent in any given year. This would also include all the lands not under management in seasonal use. If the private lands incorporated in these plans cannot be incorporated into a 50 percent or less annual vegetative use, then the pasture systems should be so designed that the public lands vegetation can be used only to that extent.



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#252 The water developments will no doubt encourage livestock to use important wildlife habitat that they previously had not used. If the vegetation in the individual use pastures is allowed to be fully used each year, many of the wildlife species will be severely negatively affected. Since none of the wildlife species are dependent on developed water sources, it is obvious the water developments are solely for livestock with the idea that the vegetation will be improved.

Page 1-4 - Grazing Management Program (& Appendix 4)

#253 "Current livestock allocation levels were estimated to be approximately 30 percent of the annual vegetation growth in the rough terrain ... and 40 percent on the more gently rolling rangelands." However, referring to Appendix 4, licensed use (LU) divided by average potential forage (APF) = utilization (multiplied by 100 equals percent). The first 12 entries average 71 percent and range from 34 to 100 percent. There are over 20 entries where the allocated grazing use exceeds the average potential forage.

The values of 30 percent and 40 percent (plains) may also be misleading. Calculations used to determine these figures apparently only took into consideration the permitted or authorized uses of the vegetation. The inference that 70 percent and 60 percent of the total forage remains for wildlife is not exactly correct since forage not utilized by permitted stock is divided among wildlife, watershed and other uses (Table A1-1, P. A6). The benefits of residual herbage to wildlife habitat and watershed protection are lost if, the total of the AUM's of three or more pastures is removed from the "heavy use" pasture.

If current use were the 30-40 percent cited, there would be no need for improvement; the report says that that level is adequate. Why then are the ranges in need of improvement? We believe current utilization is inadequately discussed.

Page 1-7, Table 1-3

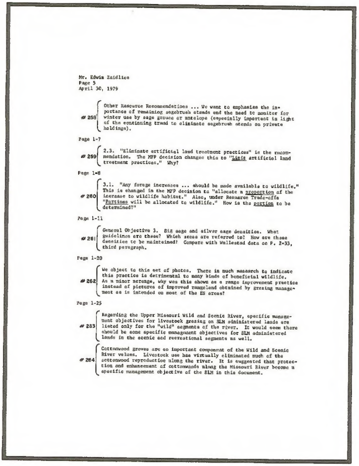
#254 1.2 Wildlife. What criteria are used to determine the June 1 turnout (of livestock)?

#255 1.3 Wildlife. We hope it is not implied here that antelope and sage grouse use coulee bottoms as wintering areas.

Page 1-7, Table 1-3

#256 1.1 & 1.2 - Should refer specifically to residual herbaceous cover.

#257 2.3 - Sagebrush spraying, whenever done, must be applied in a pattern and method resulting in the least adverse effect on wildlife habitat.



#258 Other Resource Recommendations ... We want to emphasize the importance of remaining sagebrush stands and the need to monitor for winter use by sage grouse or antelope (especially important in light of the continuing trend to eliminate sagebrush stands on private holdings).

Page 1-7

#259 2.3. "Eliminate artificial land treatment practices" is the recommendation. The MFP decision changes this to "Limit artificial land treatment practices." Why?

Page 1-8

#260 3.1. "Any forage increases ... should be made available to wildlife." This is changed in the MFP decision to "allocate a proportion of the increase to wildlife habitat." Also, under Resource Trade-offs "Portions will be allocated to wildlife." How is the portion to be determined?"

Page 1-11

#261 General Objective 3. Big sage and silver sage densities. What guidelines are these? Which areas are referred to? How are these densities to be maintained? Compare with Wallestad data on P. 2-33, third paragraph.

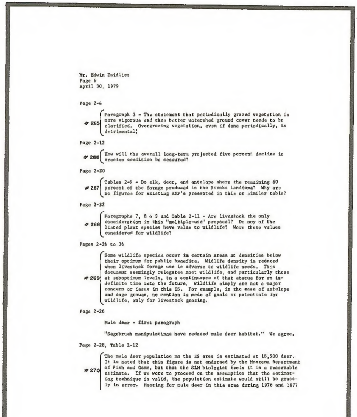
Page 1-20

#262 We object to this set of photos. There is much research to indicate this practice is detrimental to many kinds of beneficial wildlife. As a minor acreage, why was this shown as a range improvement practice instead of pictures of improved rangeland obtained by grazing management as is intended on most of the ES areas?

Page 1-25

#263 Regarding the Upper Missouri Wild and Scenic River, specific management objectives for livestock grazing on BLM administered lands are listed only for the "wild" segments of the river. It would seem there should be some specific management objectives for BLM administered lands in the scenic and recreational segments as well.

#264 Cottonwood groves are an important component of the Wild and Scenic River values. Livestock use has virtually eliminated much of the cottonwood reproduction along the river. It is suggested that protection and enhancement of cottonwoods along the Missouri River become a specific management objective of the BLM in this document.



Page 2-4

#265 Paragraph 3 - The statement that periodically grazed vegetation is more vigorous and thus better watershed ground cover needs to be clarified. Overgrazing vegetation, even if done periodically, is detrimental!

Page 2-12

#266 How will the overall long-term projected five percent decline in erosion condition be measured?

Page 2-20

#267 Tables 2-9 - Do elk, deer, and antelope share the remaining 60 percent of the forage produced in the Breaks landform? Why are no figures for existing AMP's presented in this or similar table?

Page 2-22

#268 Paragraphs 7, 8 & 9 and Table 2-11 - Are livestock the only consideration in this "multiple-use" proposal? Do any of the listed plant species have value to wildlife? Were these values considered for wildlife?

Pages 2-26 to 36

#269 Some wildlife species occur in certain areas at densities below their optimum for public benefits. Widlife density is reduced when livestock forage use is adverse to wildlife needs. This document seemingly relegates most wildlife, and particularly those at suboptimum levels, to a continuance of that status for an indefinite time into the future. Wildlife simply are not a major concern or issue in this ES. For example, in the case of antelope and sage grouse, no mention is made of goals or potentials for wildlife, only for livestock grazing.

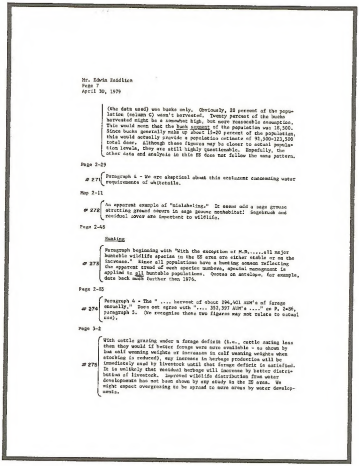
Page 2-26

Mule deer - first paragraph

"Sagebrush manipulations have reduced mule deer habitat." We agree.

Page 2-28, Table 2-12

#270 The mule deer population on the ES area is estimated at 18,500 deer. It is noted that this figure is not endorsed by the Montana Department of Fish and Game, but that the BLM biologist feels it is a reasonable estimate. If we were to proceed on the assumption that the estimating technique is valid, the population estimate would still be grossly in error. Hunting for mule deer in this area during 1976 and 1977



(the data used) was bucks only. Obviously, 20 percent of the population (column C) wasn't harvested. Twenty percent of the bucks harvested might be a somewhat high, but more reasonable assumption. This would mean that the buck segment of the population was 18,500. Since bucks generally make up about 15-20 percent of the population, this would actually provide a population estimate of 92,500-123,500 total deer. Although these figures may be closer to actual population levels, they are still highly questionable. Hopefully, the other data and analysis in this ES does not follow the same pattern.

Page 2-29

#271 Paragraph 4 - We are skeptical about this statement concerning water requirements of whitetails.

Map 2-11

#272 An apparent example of "mislabeling." It seems odd a sage grouse strutting ground occurs in sage grouse nonhabitat! Sagebrush and residual cover are important to wildlife.

Page 2-48

Hunting

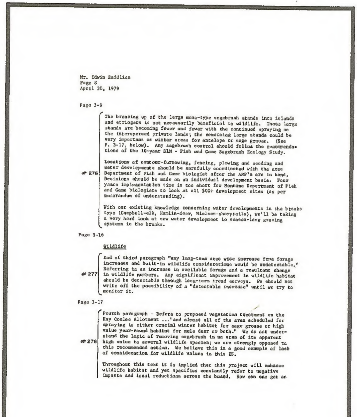
#273 Paragraph beginning with "With the exception of M.D......all major huntable wildlife species in the ES area are either stable or on the increase." Since all populations have a hunting season reflecting the apparent trend of each species numbers, special management is applied to all huntable populations. Quotas on antelope, for example, date back much further than 1976.

Page 2-85

#274 Paragraph 4 - The " .... harvest of about 294,401 AUM's of forage annually." Does not agree with ".... 352,397 AUM's ...." on P. 2-86, paragraph 5. (We recognize these two figures may not relate to actual use).

Page 3-2

#275 With cattle grazing under a forage deficit (i.e., cattle eating less than they would if better forage were more available - as shown by low calf weaning weights or increases in calf weaning weights when stocking is reduced), any increase in herbage production will be immediately used by livestock until that forage deficit is satisfied. It is unlikely that residual herbage will increase by better distribution of livestock. Improved wildlife distribution from water developments has not been shown by any study in the ES area. We might expect overgrazing to be spread to more areas by water developments.



Page 3-9

#276 The breaking up of the large mono-type sagebrush stands into islands and stringers is not necessarily beneficial to wildlife. These large stands are becoming fewer and fewer with the continued spraying on the interspersed private lands; the remaining large stands could be very important as winter areas for antelope or sage grouse. (See P. 3-17, below). Any sagebrush control should follow the recommendations of the 10-year BLM - Fish and Game Sagebrush Ecology Study.

Locations of contour-furrowing, fencing, plowing and seeding and water developments should be carefully coordinated with the area Department of Fish and Game biologist after the AMP's are in hand. Decisions should be made on an individual development basis. Four years implementation time is too short for Montana Department of Fish and Game biologists to look at all 500+ development sites (as per memorandum of understanding).

With our existing knowledge concerning water developments in the breaks type (Campbell-elk, Hamlin-deer, Nielsen-sharptails), we'll be taking a very hard look at new water development in season-long grazing systems in the breaks.

Page 3-16

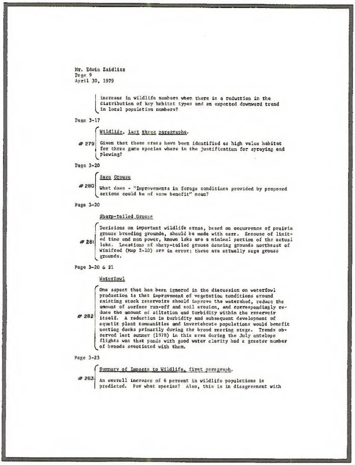
Wildlife

#277 End of third paragraph "any long-term area wide increase from forage increases and built-in wildlife considerations would be undetectable." Referring to an increase in available forage and a resultant change in wildlife numbers. Any significant improvement in wildlife habitat should be detectable through long-term trend surveys. We should not write off the possibility of a "detectable increase" until we try to monitor it.

Page 3-17

#278 Fourth paragraph - Refers to proposed vegetation treatment on the Hay Coulee Allotment ..."and almost all of the area scheduled for spraying is either crucial winter habitat for sage grouse or high value year-round habitat for mule deer or both." We do not understand the logic of removing sagebrush in an area of its apparent high value to several wildlife species; we are strongly opposed to this recommended action. We believe this is a good example of lack of consideration for wildlife values in this ES.

Throughout this text it is implied that this project will enhance wildlife habitat and yet specifics constantly refer to negative impacts and local reductions across the board. How can one get an



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increase in wildlife numbers when there is a reduction in the distribution of key habitat types and an expected downward trend in local population numbers?

Page 3-17

279 Wildlife, last three paragraphs.

Given that these areas have been identified as high value habitat for three game species where is the justification for spraying and plowing?

Page 3-20

280 Sage Grouse

What does - "Improvements in forage conditions provided by proposed actions could be of some benefit" mean?

Page 3-20

Sharp-tailed Grouse

281 Decisions on important wildlife areas, based on occurrence of prairie grouse breeding grounds, should be made with care. Because of limited time and man power, known leks are a minimal portion of the actual leks. Locations of sharp-tailed grouse dancing grounds northeast of Winifred (Map 2-10) are in error; these are actually sage grouse grounds.

Page 3-20 & 21

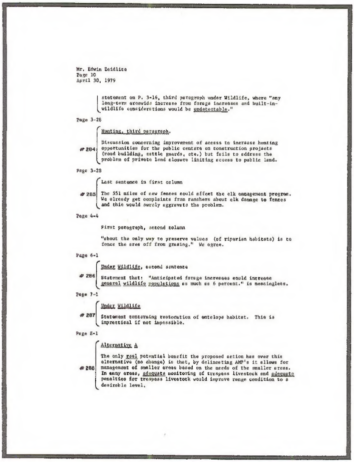
Waterfowl

282 One aspect that has been ignored in the discussion on waterfowl production is that improvement of vegetation conditions around existing stock reservoirs should improve the watershed, reduce the amount of surface run-off and soil erosion, and correspondingly reduce the amount of siltation and turbidity within the reservoir itself. A reduction in turbidity and subsequent development of aquatic plant communities and invertebrate populations would benefit nesting ducks primarily during the brood rearing stage. Trends observed last summer (1978) in this area during the July antelope flights was that ponds with good water clarity had a greater number of broods associated with them.

Page 3-23

283 Summary of Impacts to Wildlife, first paragraph.

An overall increase of 6 percent in wildlife populations is predicted. For what species? Also, this is in disagreement with



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statement on P. 3-16, third paragraph under Wildlife, where "any long-term areawide increase from forage increases and built-in-wildlife considerations would be undetectable."

Page 3-28

284 Hunting, third paragraph.

Discussion concerning improvement of access to increase hunting opportunities for the public centers on construction projects (road building, cattle guards, etc.) but fails to address the problem of private land closure limiting access to public land.

Page 3-28

285 Last sentence in first column

The 551 miles of new fences could affect the elk management program. We already get complaints from ranchers about elk damage to fences and this would surely aggravate the problem.

Page 4-4

First paragraph, second column

"about the only way to preserve values (of riparian habitats) is to fence the area off from grazing." We agree.

Page 6-1

286 Under Wildlife, second sentence

Statement that: "Anticipated forage increases could increase general wildlife populations as much as 6 percent." is meaningless.

Page 7-1

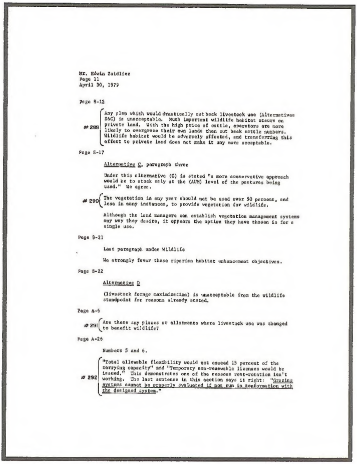
287 Under Wildlife

Statement concerning restoration of antelope habitat. This is impractical if not impossible.

Page 8-1

Alternative A

288 The only real potential benefit the proposed action has over this alternative (no change) is that, by delineating AMP's it allows for management of smaller areas based on the needs of the smaller areas. In many areas, adequate monitoring of trespass livestock and adequate penalties for trespass livestock would improve range condition to a desirable level.



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Page 8-12

# 289 Any plan which would drastically cut back livestock use (Alternatives B&C) is unacceptable. Much important wildlife habitat occurs on private land. With the high price of cattle, operators are more likely to overgraze their own lands than cut back cattle numbers. Wildlife habitat would be adversely affected, and transferring this effect to private land does not make it any more acceptable.

Page 8-17

Alternative C, paragraph three

Under this alternative (C) is stated "a more conservative approach would be to stock only at the (AUM) level of the pastures being used." We agree.

290 The vegetation in any year should not be used over 50 percent, and less in many instances, to provide vegetation for wildlife.

Although the land managers can establish vegetation management systems any way they desire, it appears the option they have chosen is for a single use.

Page 8-21

Last paragraph under Wildlife

We strongly favor these riparian habitat enhancement objectives.

Page 8-22

Alternative D

(livestock forage maximization) is unacceptable from the wildlife standpoint for reasons already stated.

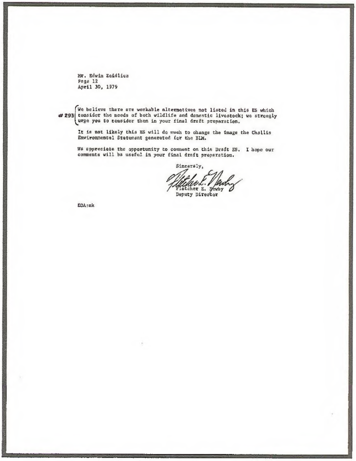
Page A-6

291 Are there any places or allotments where livestock use was changed to benefit wildlife?

Page A-26

Numbers 5 and 6.

# 292 "Total allowable flexibility would not exceed 15 percent of the carrying capacity" and "Temporary non-renewable licenses would be issued." This demonstrates one of the reasons rest-rotation isn't working. The last sentence in this section says it right: "Grazing systems cannot be properly evaluated if not run in conformation with the designed system."



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293 We believe there are workable alternatives not listed in this ES which consider the needs of both wildlife and domestic livestock; we strongly urge you to consider them in your final draft preparation.

It is not likely this ES will do much to change the image the Challis Environmental Statement generated for the BLM.

We appreciate the opportunity to comment on this Draft ES. I hope our comments will be useful in your final draft preparation.

Sincerely,

Fletcher E. Newby
Fletcher E. Newby
Deputy Director

EOA:mk

* * *

RESPONSE TO MONTANA DEPARTMENT OF FISH AND GAME

#241

As discussed on page 1-11 of the DES, all 318 allotment management plans contain both general and specific objectives. These objectives include such items as range condition, species composition, and forage cover, as well as objectives relating to watershed and wildlife benefits. Objectives for each specific AMP were not presented in their entirety because, without the entire AMP file and its supportive information, the objectives themselves would be difficult to understand. The objectives presented on page 1-11 of the DES are provided only as examples. Each AMP file is available for review in the respective BLM Resource Area Offices.

As shown on Table 1-1 (page 1-2 of the DES) and as discussed in the Livestock Forage Allocation section on page 1-4, it is estimated that 60-70% of the annual vegetation production is currently allocated to watershed, wildlife, and other consumptive and nonconsumptive uses. As stated on page 1-11, this level of allocation will continue for future forage increases except in sensitive areas as identified in individual management framework plans. In addition, on page 1-8, the following general management framework plan decisions are presented:

3.1 After allotment management plan evaluations and interdisciplinary reviews indicate that increases in forage production have occurred, allocate a proportion of the increase to wildlife habitat.

3.2 Increases in vegetation will be allocated in the best interests of all resources. As a guide all vegetation will be allocated to watershed until soils are stabilized to a satisfactory condition as determined by an interdisciplinary team review. Then, allocate no more than 50% of the total vegetative increases to livestock after the watershed has been stabilized to the greatest extent possible.

#242

It is not realistic for the BLM and the U.S. Fish and Wildlife Service to prepare a single management plan which includes the Charles M. Russell National Wildlife Refuge and the public lands encompassed by the Missouri Breaks environmental statement. Allotment management plans along the refuge boundary will not be implemented without close coordination with the affected livestock operators and the U.S. Fish and Wildlife Service. Where specific resource objectives are compatible on the refuge and

* * *

adjacent BLM lands, cooperative grazing management will be sought. However, because of different legislative mandates for management of the lands under the two jurisdictions, it may be necessary to physically separate the jurisdictions in selected areas. This would be done only where specific resource objectives between the two agencies differ and cooperative efforts will not accommodate the objectives of the respective agencies. When the refuge management plan is complete in mid-1980 and specific management goals are identified by location on the refuge, additional cooperation between the two agencies can take place on detailed management activities.

#243

BLM Resource Area biologists participated in the interdisciplinary reviews of the allotment management plans which formed the basis for the proposed action. Highly qualified BLM state and district office wildlife biologists were an integral part of the effort to prepare this ES. Examination of the unit resource analyses and management framework plans covering the ES area will reveal that virtually all available wildlife information for the area was considered. The fact that parts of the proposed action affect wildlife does not indicate a lack of consideration for wildlife in the multiple use decisionmaking process.

See response to comment #245.

#244

The winter concentration area east of the Judith Mountains was mislabeled "non-habitat" due to an inadvertent map transcription error. However, the non-habitat and winter concentration areas east of Christina are shown on Map 2-8 as transcribed directly from the Department of Fish and Game 1974 overlays.

Although the elk habitat designations on Map 2-9 are confusing, the solution is not as simple as indicated. For example, north of the Charles M. Russell National Wildlife Refuge, BLM Resource Area maps showed the distribution and location of high value yearlong habitat. However, for that area neither the BLM nor the Department of Fish and Game maps contain information on wintering areas. In the western part of the ES area., elk concentration areas during severe winters and other habitat designations were available on the Department of Fish and Game overlays in greater detail then on BLM maps because of the scarcity of BLM lands in that area. The difficulty resulted from combining two sets of related but not identically categorized map data. It is hoped that coordination of mapping efforts between the two agencies will avoid such problems in the future.

* * *

Maps of general mule deer wintering areas were not available for much of the ES area and in most cases the areas so designated were too large to be useful in any decisionmaking process. Inclusion of general wintering areas would have added to th already confusing nature of the maps.

The availability of updated Department of Fish and Game maps will be useful during implementation of the final action proposed. The interdisciplinary review of AMPs prior to implementation will include analysis of the most current information available on the location of important wildlife habitats.

#245

During the early development of some of the management framework plans and again when the draft of this ES was initiated, the Montana Department of Fish and Game was contacted verbally and asked to assist with the estimation of big game populations. The agency was unwilling, however, to participate in any effort to come up with estimates of wildlife "numbers."

The Montana Department of Fish and Game, in criticizing the proposed forage allocations to livestock on the one hand, and yet refusing to cooperate in developing objective population data by which to estimate the needs of wildlife on the other hand, appears to give more weight to self-preservation through political means than to the protection of state owned resources through sound management practices.

The Department of Fish and Game's policy on this matter must change in the near future. Accurate wildlife population and forage requirement estimates will be necessary in the four remaining range management impact statements to be completed in Montana in the next several years. The cooperation of the Department of Fish and Game will be necessary if proper allocations to wildlife are to be made.

#246

The environmental statement area illustrated on Map 1-1 and used as a basis for further mapping in the DES was defined as the nine county area which included all existing, revised, and proposed AMPs; all non-AMP lands (formally called custodial lands); and all unallotted lands. Environmental statement area delineation provided the general limits for the analysis included in the DES.

* * *

#247

The availablity of funds for the manpower needed to implement the proposed action will be a critical factor in the decisionmaking process. If the necessary funding is not forthcoming or is reduced, the level of implementation would be reduced proportionately.

#248

Supplement No. 1 to the Memorandum of Understanding between the BLM and the Department of Fish and Game will be adhered to. Also see response to comment #1.

#249

No considerations in the calculations which determine livestock use levels are given to illegal, unlicensed or unpermitted use as there is no way of determining a meaningful figure for such use. All administrative and trespass matters will be per BLM Grazing Administration and Trespass Regulations which became effective on August 4, 1978. As discussed under Implementation on page 1-23 of the DES, an additional 20 range technician positions are proposed and a large portion of their time would be concerned with range use supervision.

#250

Concern for the adverse impacts on wildlife of new reservoirs constructed within the riverbreaks landform is valid and will be carefully considered in all decisions regarding the implementation of AMPs. All proposed water developments will receive close scrutiny by an interdisciplinary team including a wildlife biologist prior to implementation. See mitigating measure #7 on page 4-1 of the DES.

#251

Not all 318 AMPs propose rest rotation grazing systems. As discussed on page 1-13, 81 AMPs propose rest rotation systems. Seven AMPs bordering the Charles M. Russell National Wildlife Refuge include rest rotation grazing systems. As discussed on page 1-11, on an allotment basis approximately 50% of the key forage species would be used by livestock. It would be impossible, however, to assure 50% use of individual plants or preferred sites. As Hormay (1970) states:

* *

> ". . .assumption that plants can be grazed to a proper level through regulation of stocking is unrealistic because of the grazing habits of livestock. Livestock graze the range selectively, by species and areas. They consistently graze the more palatable plants and accessible areas closely and, invariably, beyond proper-use level. The pattern of use is very uneven, but much the same from year to year. Plants grazed closely one year tend to be grazed closely the next. So under continuous grazing at any stocking level, the more palatable and accessible plants are gradually killed out. Livestock then graze on less desirable plants. This process leads progressively to ever enlarging areas of deterioration. Unfortunately, the best plants and best grazing sites are destroyed first."

#252

We believe that improved vegetative conditions will be realized at about 50% allowable use of usable forage species, in conjunction with properly designed grazing management systems. This means that the vegetation in the individual use pastures would not be fully used every year. Improved range condition resulting from improved livestock management provides benefits to watershed, wildlife, recreation, and visual resources.

#253

The formula for utilization used in the comment is incorrect. The average potential forage is livestock forage and not total potential forage. Appendix 1 and in particular page A-6, explains the methodology used to derive the figures of 30% allocation of livestock forage for the riverbreaks landform and 40% allocation for the rolling plains landform. Note that the total annual production potential for each range site was multiplied by the percent of usable livestock forage and then multiplied by 50% on the assumption that this is an average livestock utilization level.

The footnotes at the end of Appendix 4 and mitigating measures on page 4-1 discuss and make recommendations for those 31 allotments where livestock forage projections in the AMPs do not agree with potential livestock forage projections from Soil Survey plus MRB Stocking Guides.

There is no inference that 70% and 60% of the total forage remains for wildlife. Table A1-1, page A-7 of the DES, states that these allocation levels are for wildlife, watershed, and other uses. This is also shown in the text on Table 1-1 where it states that the allocation of annual vegetation production on public lands within AMP areas for watershed, wildlife, and other consumptive and non-consumptive uses is 60-70%.

* *

A slight decline in range condition has been estimated, primarily on those allotments where proper grazing management practices have not been implemented. As Hormay points out, ". . . so under continuous grazing at any stocking level, the more palatable and accessible plants are gradually killed out." The point is that even with moderate stocking, a need exists to provide periodic rest for the preferred sites so that improved plant vigor and reproduction can be realized over the entire range. This normally requires some kind of grazing management system and project development such as fences and water developments.

#254

Deferment of livestock grazing until June 1 was suggested in MFP Step 1 in order to provide maximum forb quantity for game and nongame consumption in the spring and to supplement and prevent the trampling of residual cover for grouse and waterfowl. Sharp-tailed grouse and sage grouse depend to a large degree on perennial grass for nesting cover. The sharptail especially needs a good residual grass cover throughout its mating and brood rearing period. This grass cover is also beneficial to nesting waterfowl. The criteria for the June 1 turn-out are: (a) by then wild ungulates have had considerable opportunity to use available forbs and there is enough grass available to reduce competition for the remainder, and (b) by then most game and nongame birds have progressed far enough in their nesting and brood raising to be relatively unaffected by grazing.

#255

The discussion referred to is not necessarily inappropriate since some areas of silver sage in coulees within the ES area are important wintering areas for antelope and sage grouse.

Paragraph 1.3 in columns 2 and 4 on page 1-7 should be changed to read, "Wildlife: Improve the vigor in brush species in coulee bottoms and other important habitats by removal of livestock. . ."

#256

Residual herbaceous cover and woody cover such as sagebrush and other shrubs are discussed in the planning documents for the various Resource Areas. Although herbaceous cover is very important, specification of individual wildlife food and cover plants or plant groups would provide inappropriate detail for a summary of Management Framework Plans.

* *

#257

Sagebrush spraying, which is addressed in paragraph 2.4 on page 1-8 of the DES, will be done in accordance with Supplement No. 1 of the Memorandum of Understanding between BLM and the Department. Although wildlife will in every case be given significant consideration, the multiple use decision will not always be that action which has the least adverse effect on wildlife habitat.

#258

The monitoring of sage grouse and antelope winter habitat is currently done cooperatively by the Department of Fish and Game and BLM. See response to comment #257.

#259

Table 1-3 is an example which is used to explain the Bureau planning system. The MFP (Step 1) recommendations such as the 2.3 wildlife recommendation you refer to are made by each specialist for his resource (such as wildlife, range, archaeology, watershed, and recreation) with a single use perspective; i.e., to maximize that resource. The MFP decisions are made by management personnel and weigh all recommendations and resource tradeoffs in a multiple use context. Seldom does any single use or special interest receive the maximum potential allocation.

#260

The current level of allocation (see response to comment #253) would continue for future forage increases except in sensitive areas as identified in individual management framework plans. Sensitive areas generally refer to locations with erosion problems. The allocation of annual vegetation production on public lands within AMP areas for watershed, wildlife, and other consumptive and non-consumptive uses is 60-70% (see Appendix 1 in the DES).

#261

See response to comment #241.

#262

Illustrations of all range improvements which could be readily portrayed by photograph or drawings were included in Chapter 1 or Appendix 3. Recognizing the controversial nature of sagebrush spraying, we believe it is appropriate to include photographs of such activity.

* *

#263

A final management plan for the Upper Missouri Wild and Scenic River was approved by the BLM State Director on October 20, 1978. There are six existing, three revised, and eighteen proposed allotment management plans with all or portions of their pastures within the management corridor for the riverway. Each AMP was carefully reviewed against the management objectives established for the riverway.

The discussion on page 1-27 of the draft environmental statement which refers to specific management objectives for livestock grazing within "wild segments" of the river should be deleted. It should be replaced with a discussion of resource objectives included in AMPs along the riverway and a discussion of grazing management related objectives for the wild, scenic, and recreational river segments. See Part 2 for the language to be added.

#264

Captain Lewis (1805) described the trees in his Journal when he stated "there is now no timber on the hills, and only a few scattering cottonwood ash, boxelder, and willows to be seen along the river." It is a description that remains apt today. The protection and enhancement of cottonwood groves on the river is an objective of the Upper Missouri Wild and Scenic River Management Plan. The plan includes exclusion of livestock on small tracts of public land to determine if such use is the limiting factor. There is disagreement in many quarters on the limiting factors for cottonwood regeneration along the river. Some believe that the river itself (flooding and erosion on flood plains and spring ice breakup) is the dominant influence.

#265

Overgrazing is not proposed. The sentence referred to on page 2-4 states, "Periodically (emphasis added) grazed vegetation has been found to be more vigorous . . ."

#266

Trend plots will give a data base for changes in erosion condition. In addition, periodic scrutiny of the overall area by resource specialists would surface localized erosion acceleration attributable to livestock.

#267

See response to comment #253 for a discussion of forage availability for wildlife. Soil surveys of the proposed AMPs were performed by SCS soil scientists under a cooperative agreement. No such surveys were completed on existing AMPs. Detailed soil surveys within the ES area are ongoing; as this data becomes available, existing AMP data files will be updated. Because soil surveys form the basis for the estimation of potential forage productivity, no such figures were developed for existing AMPs.

* *

#268

The section on poisonous and noxious plants and Table 2-11 is not a "multiple use" proposal. It is a portion of the description of the existing environment and is based on existing literature available and relative to the ES area.

Paragraph 3 under the section on poisonous and noxious plants on page 2-22 states that it should be recognized that many species that are potentially poisonous may be harmless under most circumstances and that some of these species are valuable forage for livestock and wildlife.

#269

See response to comments #123 and #244 for a discussion of the emphasis given to wildlife in the DES and the planning documents upon which it is based.

The need for establishing specific goals for wildlife populations is recognized. BLM hopes to cooperate more successfully with interested agencies in this regard in the future.

#270

The estimate of the mule deer population in the DES is incorrect. The data opposite mule deer in Table 2-12 should read in columns A, B, C, D, and the last two columns respectively 8,168, .45, .04, 91,890, 92,000, and 85,000-99,000. On page 2-26 in the first sentence under mule deer the estimated population should be changed to read ". . . between 85,000 and 99,000 . . ."

The purpose of the estimates referred to was to give a general idea of the number of big game animals in the ES area. The accuracy of the estimates is not critical to the analysis in Chapter 3.

See response to comment #245.

#271

The commentator is referred to Habitat Management for White-tailed Deer, by the Soil Conservation Service (1973). See reference on page R-4 of the DES.

* *

#272

This is another example of the need for better interagency coordination in the mapping of wildlife habitat. BLM biologists located the lek within the area designated non-habitat by the Montana Department of Fish and Game. Map 2-11 should be modified such that the area immediately surrounding the lek is designated high value habitat. The actual configuration of that habitat is being mapped by BLM personnel in Miles City. The information obtained will be given to the Department's Miles City Office.

#273

We did not mean to imply that there are some huntable populations which are not given special management. The paragraph in question should be deleted since the information it attempts to provide is already in the wildlife section.

#274

The figure on page 2-86 of 352,397 AUMs refers to present licensed use for all public lands within the ES area, while the figure of 294,401 AUMs refers to the 318 proposed, revised, and existing AMPs and does not include the 251,000 acres of public land which is managed on a less intensive basis.

#275

Residual forage increases due to better distribution of livestock utilization have been demonstrated (Willard and Herman 1977). We agree that no study in the ES area shows better distribution of of wildlife due to water development. Therefore, the discussion on page 3-2 of the DES should be revised as follows: "Beneficial impacts of improved livestock distribution, as further discussed in Appendix 5, should outweigh . . ."

#276

The comment that the breaking up of large monotype sagebrush stands into islands and stringers is not necessarily a benefit to wildlife is valid. The last two sentences of the seventh full paragraph on page 3-9 should be deleted.

See response to comments #1 and #101.

* *

The implementation schedule of four years is ambitious; depending on funding and manpower, it may take considerably longer to implement all the AMPs. This would provide more time for coordination. However, although the opportunity will be provided for Department of Fish and Game input into decisions on reservoir construction and location, we do not interpret the memorandum of understanding to mean that each such project must be examined and approved by the Department prior to implementation.

#277

See responses to comments #245 and #283.

#278

See response to comment #1.

The prediction of a small overall increase in wildlife populations due to improved vegetative conditions as a result of the proposed action is admittedly subjective. It assumes that the reduction of some local populations, for example, sage grouse where sagebrush is controlled, would be offset by wildlife population increases in other areas, for example, where rest rotation grazing will increase the amount of residual cover available for waterfowl nesting. See response to comment #283.

#279

See response to comment #1.

#280

The sentence means that although sage grouse populations would be reduced locally by the proposed sagebrush control, other sage grouse populations would benefit from increases in forbs and generally improved vegetation conditions as a result of other parts of the proposed action.

See response to comment #245.

#281

We recognize the importance of management of habitat associated with leks. See the discussion under sage grouse on pages 2-32 and 2-33 of the DES.

* *

The leks northeast of Winifred were improperly labeled. They should be removed from Map 2-10. Most of them are already included on Map 2-11; those that are not should be added. Some additional leks have been located since the DES was prepared; updated locations of leks are available at BLM Area Offices.

#282

The following paragraph should be inserted after the first partial paragraph on page 3-22:

> Improvement of vegetation conditions around existing stock reservoirs should improve the watershed, reduce the amount of surface runoff and soil erosion, and correspondingly reduce the amount of siltation and turbidity within the reservoir itself. A reduction in turbidity and subsequent development of aquatic plant communities and invertebrate populations would benefit nesting ducks primarily during the brood rearing stage.

#283

As explained in response to comment #245, estimates of the overall impacts on wildlife populations are rough and rather subjective. The estimate is an average for all species. Some species might increase more than 6%, others would increase less than 6% or even decrease. But in general, there would be an increase of perhaps 6%. Current wildlife census techniques and funds to carry out those techniques are such that an actual average increase of 6% in any game or non-game population in the ES area would be undetectable (Weeden 1978).

#284

It is true that in some areas private land closures have eliminated access to the public land. Although this is a significant recreational problem, it is not addressed in Chapter 3 because the problem would not be affected by the proposed action. It is addressed, however, at the top of page 8-15 under the no grazing alternative.

#285

Only 25 miles of fence are proposed within elk habitat. Wildlife biologists will be involved in locating fences in hopes of minimizing fence maintenance.

#286

See response to comments #245 and #283.

* *

#287

It is agreed that the restoration of sagebrush habitat would be impractical and unlikely. But it would not be impossible if funds for shrub transplantation and other techniques were made available.

#288

See response to comments #241 and #249. AMP areas are essentially delineated (and exteriors fenced) at the present. We believe unauthorized livestock use is more an occasional local problem than a widespread problem. BLM has, in the past two years, increased allotment supervision, including livestock counts. Public reports of suspected trespass are also becoming more common.

#289

BLM cannot allow more livestock use than current available forage. The Federal Land Policy and Management Act and grazing regulations clearly prohibit grazing use greater than what can be harvested on a sustained yield basis. The proposed action recommends a 1% reduction in livestock use on public lands. This reduction would be applied to 69 allotments, 10 of which would receive a reduction of 25% or greater. We believe this adjustment is necessary to comply with current laws and regulations.

We do not agree that "operators are more likely to overgraze their own lands than cut back cattle numbers." They may be required to seek additional pasture or improve production of their private lands. Most operators will seldom knowingly overgraze their private lands to the point of deteriorating forage productivity.

#290

See response to comments #251 and #253

#291

Yes. The criteria for proposed adjustments in the amount of livestock use authorized are summarized on page A-6. Note that better characterization of wildlife requirements was considered. Specific adjustments in livestock use for each allotment is shown in Appendix 4. Season of use in many cases was delayed to allow

* *

for more total vegetation production. Finally, grazing management systems were drafted to help overcome the harmful effects of selective grazing by livestock. All these and other actions were considered during the updating of every management framework plan. Further adjustments resulted from guidance generated from these updated management framework plans. All management framework plans and specific allotment management plans are available at respective Resource Area Offices for review.

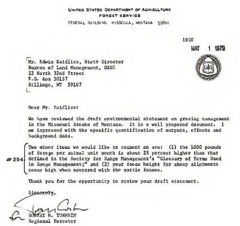
#292

The statement that grazing systems cannot be properly evaluated if not run in conformance with the designed systems is in reference to the system or schedule of movements from pasture to pasture. Because forage production varies from year to year due to such things as weather or grasshoppers, the use of flexibility and temporary non-renewable licenses allows some adjustment for those times when production is above or below average.

The flexibility in proposed AMPs varies, but no permanent use is allowed over carrying capacity until a grazing cycle is completed and an environmental assessment record is completed. Item 7, page A-26, first two sentences, provides additional detail on flexibility.

#293

The Montana Department of Fish and Game objects to Alternative C, reduced levels of livestock use, (first paragraph, page 11 of the April 30, 1979 letter) which is essentially a wildlife and watershed maximization alternative. Therefore, the type of alternative which the Department favors is not clear. No new alternative has been developed. See response to comment #203.



UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FEDERAL BUILDING MISSOULA, MONTANA 59801

1950
MAY 1 1979

Mr. Edwin Zaidlicz, State Director
Bureau of Land Management, USDI
22 North 32nd Street
P.O. Box 30157
Billings, MT 59107

Dear Mr. Zaidlicz:

We have reviewed the draft environmental statement on grazing management in the Missouri Breaks of Montana. It is a well prepared document. I am impressed with the specific quantification of outputs, effects and background data.

#294 Two minor items we would like to comment on are: (1) the 1000 pounds of forage per animal unit month is about 25 percent higher than that defined in the Society for Range Management's "Glossary of Terms Used in Range Management;" and (2) your fence height for sheep allotments seems high when compared with the cattle fences.

Thank you for the opportunity to review your draft statement.

Sincerely,

ROBERT H. TORHEIM
Regional Forester

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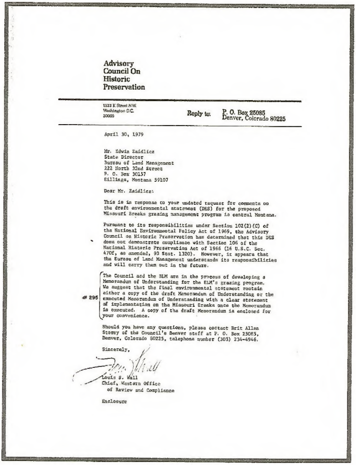
* *

RESPONSE TO THE U.S. FOREST SERVICE

#294

Estimates of forage requirements per animal unit month (AUM) range from 700 to 1,200 pounds depending on the type and condition of the rangeland, condition of the animals, climate, periods of use, etc. Because of the type of range and the distance traveled by livestock in grazing and returning to water sources in the ES area, a conservative average estimate of 1,000 pounds was used in ES calculations. Also see response to comment #163.

All fence specifications described in Appendix 3, page A-28 of the DES, are standard specifications for BLM fences.



**Advisory
Council On
Historic
Preservation**

1522 K Street N.W.
Washington D.C.
20005

Reply to: P. O. Box 25085
Denver, Colorado 80225

April 30, 1979

Mr. Edwin Zaidlicz
State Director
Bureau of Land Management
222 North 32nd Street
P. O. Box 30157
Billings, Montana 59107

Dear Mr. Zaidlicz:

This is in response to your undated request for comments on the draft environmental statement (DES) for the proposed Missouri Breaks grazing management program in central Montana.

Pursuant to its responsibilities under Section 102(2)(C) of the National Environmental Policy Act of 1969, the Advisory Council on Historic Preservation has determined that this DES does not demonstrate compliance with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. Sec. 470f, as amended, 90 Stat. 1320). However, it appears that the Bureau of Land Management understands its responsibilities and will carry them out in the future.

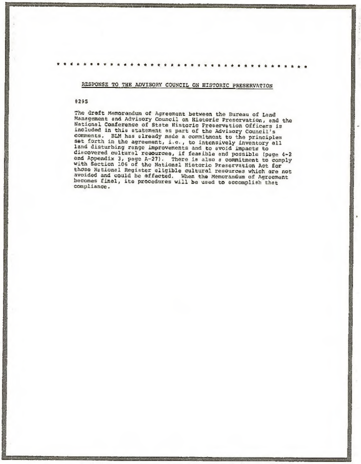
# 295 The Council and the BLM are in the process of developing a Memorandum of Understanding for the BLM's grazing program. We suggest that the final environmental statement contain either a copy of the draft Memorandum of Understanding or the executed Memorandum of Understanding with a clear statement of implementation on the Missouri Breaks once the Memorandum is executed. A copy of the draft Memorandum is enclosed for your convenience.

Should you have any questions, please contact Brit Allen Storey of the Council's Denver staff at P. O. Box 25085, Denver, Colorado 80225, telephone number (303) 234-4946.

Sincerely,

Louis S. Wall
Chief, Western Office
of Review and Compliance

Enclosure

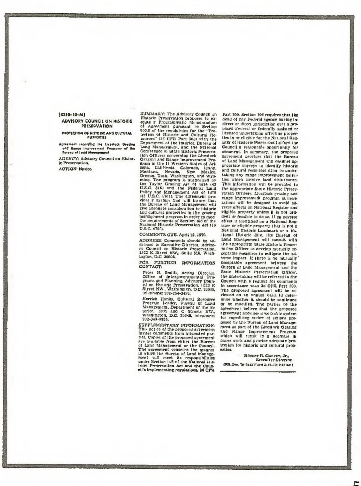


* * *

RESPONSE TO THE ADVISORY COUNCIL ON HISTORIC PRESERVATION

#295

The draft Memorandum of Agreement between the Bureau of Land Management and Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers is included in this statement as part of the Advisory Council's comments. BLM has already made a commitment to the principles set forth in the agreement, i.e., to intensively inventory all land disturbing range improvements and to avoid impacts to discovered cultural resources, if feasible and possible (page 4-2 and Appendix 3, page A-27). There is also a commitment to comply with Section 106 of the National Historic Preservation Act for those National Register eligible cultural resources which are not avoided and could be affected. When the Memorandum of Agreement becomes final, its procedures will be used to accomplish that compliance.



[4310-10-M]

ADVISORY COUNCIL ON HISTORIC PRESERVATION

PROTECTION OF HISTORIC AND CULTURAL PROPERTIES

Agreement regarding the Livestock Grazing and Range Improvement Programs of the Bureau of Land Management

AGENCY: Advisory Council on Historic Preservation.

ACTION: Notice.

SUMMARY: The Advisory Council on Historic Preservation proposes to execute a Programmatic Memorandum of Agreement pursuant to Section 800.8 of the regulations for the "Protection of Historic and Cultural Resources" (36 CFR Part 800) with the Department of the Interior, Bureau of Land Management, and the National Conference of State Historic Preservation Officers concerning the Livestock Grazing and Range Improvement Program in the 11 Western States of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. The program is authorized by the Taylor Grazing Act of 1934 (43 U.S.C. 315) and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701). The agreement provides a system that will insure that the Bureau of Land Management will give adequate consideration to historic and cultural properties in the grazing management program in order to meet the requirements of Section 106 of the National Historic Preservation Act (16 U.S.C. 470f).

COMMENTS DUE: April 12, 1979.

ADDRESS: Comments should be addressed to Executive Director, Advisory Council on Historic Preservation, 1522 K Street NW., Suite 510, Washington, D.C. 20005.

FOR FURTHER INFORMATION CONTACT:

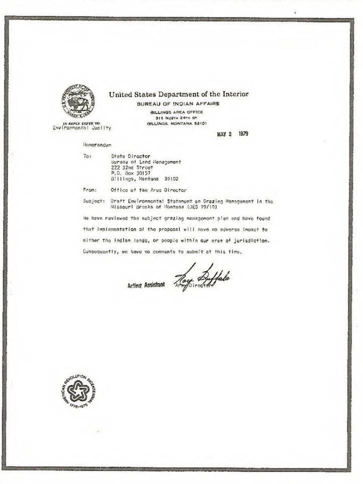
Peter H. Smith, Acting Director, Office of Intergovernmental Programs and Planning, Advisory Council on Historic Preservation, 1522 K Street NW., Washington, D.C. 20005, telephone: 202-254-3495.

Herrick Hanks, Cultural Resource Program Leader, Bureau of Land Management, Department of the Interior, 18th and C Streets NW., Washington, D.C. 20240, telephone: 202-343-9353.

SUPPLEMENTARY INFORMATION: This notice of the proposed agreement invites comments from interested parties. Copies of the proposed agreement are available from either the Bureau of Land Management or the Council. The agreement concerns the manner in which the Bureau of Land Management will meet its responsibilities under Section 106 of the National Historic Preservation Act and the Council's implementing regulations, 36 CFR Part 800. Section 106 requires that the head of any Federal agency having indirect or direct jurisdiction over a proposed Federal or federally assisted or licensed undertaking affecting properties in or eligible for the National Register of Historic Places shall afford the Council a reasonable opportunity for comment. In summary, the proposed agreement provides that the Bureau of Land Management will conduct appropriate surveys to identify historic and cultural resources prior to undertaking any range improvement activities which involve land disturbance. This information will be provided to the appropriate State Historic Preservation Officers. Livestock grazing and range improvement program authorizations will be designed to avoid adverse effects on National Register and eligible property unless it is not prudent or feasible to do so. If an adverse effect is identified on a National Register or eligible property that is not a National Historic Landmark or a National Historic Site, the Bureau of Land Management will consult with the appropriate State Historic Preservation Officer to develop mutually acceptable measures to mitigate the adverse impact. If there is no mutually acceptable agreement between the Bureau of Land Management and the State Historic Preservation Officer, the undertaking will be referred to the Council with a request for comments in accordance with 36 CFR Part 800. The proposed agreement will be reviewed on an annual basis to determine whether it should be continued or be modified. The parties to the agreement believe that the proposed agreement provides a workable system for expediting review of actions proposed by the Bureau of Land Management as part of the Livestock Grazing and Range Improvement Program which will result in a decrease in paper work and provide adequate protection for historic and cultural properties.

ROBERT R. GARVEY, Jr.,
Executive Director.

[FR Doc. 79-7812 Filed 3-12-79; 8:45 am]



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
BILLINGS AREA OFFICE
316 NORTH 26TH ST.
BILLINGS, MONTANA 59101

IN REPLY REFER TO:
Environmental Quality

MAY 2 1979

Memorandum

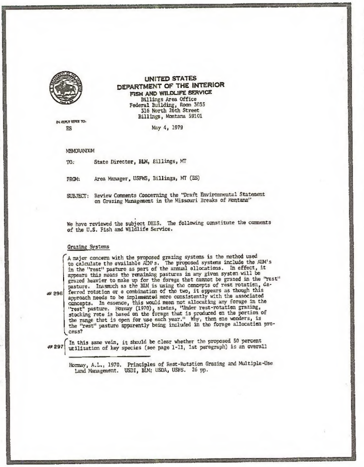
To: State Director
Bureau of Land Management
222 32nd Street
P.O. Box 30157
Billings, Montana 59102

From: Office of the Area Director

Subject: Draft Environmental Statement on Grazing Management in the Missouri Breaks of Montana (DES 79/10)

We have reviewed the subject grazing management plan and have found that implementation of the proposal will have no adverse impact to either the Indian lands, or people within our area of jurisdiction. Consequently, we have no comments to submit at this time.

Roy Buffalo
Acting Assistant Area Director



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Billings Area Office
Federal Building, Room 3035
316 North 26th Street
Billings, Montana 59101

IN REPLY REFER TO:
ES

May 4, 1979

MEMORANDUM

TO: State Director, BLM, Billings, MT

FROM: Area Manager, USFWS, Billings, MT (ES)

SUBJECT: Review Comments Concerning the "Draft Environmental Statement on Grazing Management in the Missouri Breaks of Montana"

We have reviewed the subject DEIS. The following constitute the comments of the U.S. Fish and Wildlife Service.

Grazing Systems

#296 A major concern with the proposed grazing systems is the method used to calculate the available AUM's. The proposed systems include the AUM's in the "rest" pasture as part of the annual allocations. In effect, it appears this means the remaining pastures in any given system will be grazed heavier to make up for the forage that cannot be grazed in the "rest" pasture. Inasmuch as the BLM is using the concepts of rest rotation, deferred rotation or a combination of the two, it appears as though this approach needs to be implemented more consistently with the associated concepts. In essence, this would mean not allocating any forage in the "rest" pasture. Hormay (1970), states, "Under rest-rotation grazing, stocking rate is based on the forage that is produced on the portion of the range that is open for use each year." Why, then one wonders, is the "rest" pasture apparently being included in the forage allocation process?

#297 In this same vein, it should be clear whether the proposed 50 percent utilization of key species (see page 1-11, 1st paragraph) is an overall

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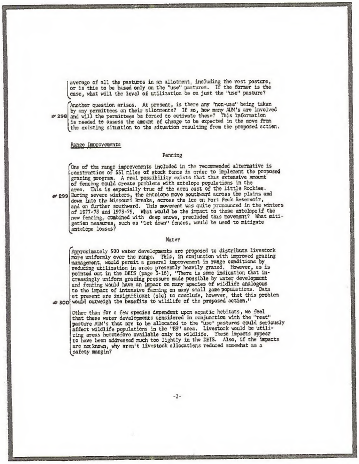
Hormay, A.L., 1970. Principles of Rest-Rotation Grazing and Multiple-Use Land Management. USDI, BLM; USDA, USFS. 26 pp.



average of all the pastures in an allotment, including the rest pasture, or is this to be based only on the "use" pastures. If the former is the case, what will the level of utilization be on just the "use" pasture?

#298 Another question arises. At present, is there any "non-use" being taken by any permittees on their allotments? If so, how many AUM's are involved and will the permittees be forced to activate these? This information is needed to assess the amount of change to be expected in the move from the existing situation to the situation resulting from the proposed action.

Range Improvements

Fencing

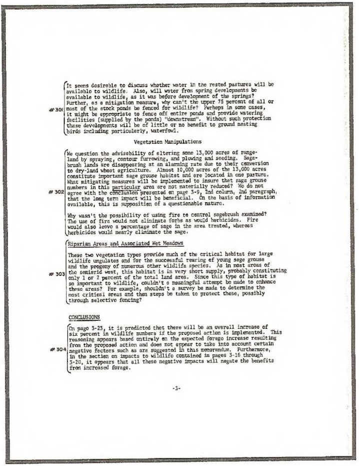
#299 One of the range improvements included in the recommended alternative is construction of 551 miles of stock fence in order to implement the proposed grazing program. A real possibility exists that this extensive amount of fencing could create problems with antelope populations in the area. This is especially true of the area east of the Little Rockies. During severe winters, the antelope move southward across the plains and down into the Missouri Breaks, across the ice on Fort Peck Reservoir, and on further southward. This movement was quite pronounced in the winters of 1977-78 and 1978-79. What would be the impact to these antelope if the new fencing, combined with deep snows, precluded this movement? What mitigation measures, such as "let down" fences, would be used to mitigate antelope losses?

Water

#300 Approximately 500 water developments are proposed to distribute livestock more uniformly over the range. This, in conjuction with improved grazing management, would permit a general improvement in range conditions by reducing utilization in areas presently heavily grazed. However, as is pointed out in the DEIS (page 3-16), "There is some indication that increasingly uniform grazing pressure made possible by water development and fencing would have an impact on many species of wildlife analogous to the impact of intensive farming on many small game populations. Data at present are insignificant (sic) to conclude, however, that this problem would outweigh the benefits to wildlife of the proposed action."

Other than for a few species dependent upon aquatic habitats, we feel that these water developments considered in conjunction with the "rest" pasture AUM's that are to be allocated to the "use" pastures could seriously affect wildlife populations in the "ES" area. Livestock would be utilizing areas heretofore available only to wildlife. These impacts appear to have been addressed much too lightly in the DEIS. Also, if the impacts are not known, why aren't livestock allocations reduced somewhat as a safety margin?

-2-



#301 It seems desirable to discuss whether water in the rested pastures will be available to wildlife. Also, will water from spring developments be available to wildlife, as it was before development of the springs? Further, as a mitigation measure, why can't the upper 75 percent of all or most of the stock ponds be fenced for wildlife? Perhaps in some cases, it might be appropriate to fence off entire ponds and provide watering facilities (supplied by the ponds) "downstream". Without such protection these developments will be of little or no benefit to ground nesting birds including particularly, waterfowl.

Vegetation Manipulations

#302 We question the advisability of altering some 13,000 acres of rangeland by spraying, contour furrowing, and plowing and seeding. Sagebrush lands are disappearing at an alarming rate due to their conversion to dry-land wheat agriculture. Almost 10,000 acres of the 13,000 acres constitute important sage grouse habitat and are located in one pasture. What mitigating measures will be implemented to insure that sage grouse numbers in this particular area are not materially reduced? We do not agree with the conclusion presented on page 3-9, 2nd column, 2nd paragraph, that the long term impact will be beneficial. On the basis of information available, this is supposition of a questionable nature.

Why wasn't the possibility of using fire to control sagebrush examined? The use of fire would not eliminate forbs as would herbicides. Fire would also leave a percentage of sage in the area treated, whereas herbicides would nearly eliminate the sage.

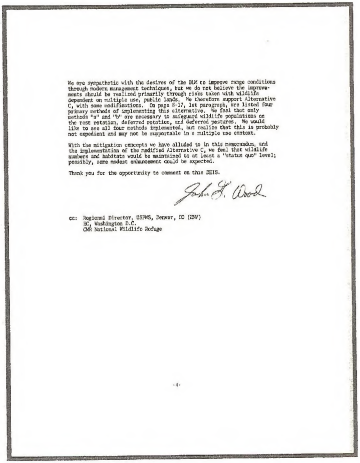
Riparian Areas and Associated Wet Meadows

#303 These two vegetation types provide much of the critical habitat for large wildlife ungulates and for the successful rearing of young sage grouse and the progeny of numerous other wildlife species. As in most areas of the semiarid west, this habitat is in very short supply, probably constituting only 1 or 2 percent of the total land area. Since this type of habitat is so important to wildlife, couldn't a meaningful attempt be made to enhance these areas? For example, shouldn't a survey be made to determine the most critical areas and then steps be taken to protect these, possibly through selective fencing?

CONCLUSIONS

#304 On page 3-23, it is predicted that there will be an overall increase of six percent in wildlife numbers if the proposed action is implemented. This reasoning appears based entirely on the expected forage increase resulting from the proposed action and does not appear to take into account certain negative factors such as are suggested in this memorandum. Furthermore, in the section on impacts to wildlife contained in pages 3-16 through 3-20, it appears that all these negative impacts will negate the benefits from increased forage.

-3-



We are sympathetic with the desires of the BLM to improve range conditions through modern management techniques, but we do not believe the improvements should be realized primarily through risks taken with wildlife dependent on multiple use, public lands. We therefore support Alternative C, with some modifications. On page 8-17, 1st paragraph, are listed four primary methods of implementing this alternative. We feel that only methods "a" and "b" are necessary to safeguard wildlife populations on the rest rotation, deferred rotation, and deferred pastures. We would like to see all four methods implemented, but realize that this is probably not expedient and may not be supportable in a multiple use context.

With the mitigation concepts we have alluded to in this memorandum, and the implementation of the modified Alternative C, we feel that wildlife numbers and habitats would be maintained to at least a "status quo" level; possibly, some modest enhancement could be expected.

Thank you for the opportunity to comment on this DEIS.

John G. Wood

cc: Regional Director, USFWS, Denver, CO (ENV)
EC, Washington D.C.
CMR National Wildlife Refuge

-4-

* * *

RESPONSE TO U.S. FISH AND WILDLIFE SERVICE

#296

According to BLM policy, initial stocking rates for allotments in good or excellent condition with a stable or improving trend should be based on the carrying capacity of the total allotment that is suitable for livestock use and allocated for use by livestock in the land use plan. Initial stocking rates for allotments with a downward trend in range condition or that are in fair or poor condition will be based on the forage capacity of the portion of the allotment that is suitable for livestock use, is allocated for livestock use in the land use plan, and is scheduled for grazing during that year.

#297

The level of utilization would be about 50% of the usable livestock forage species within the pastures scheduled for grazing. This, of course, would vary from light to heavy use due to the selective grazing habitats of livestock, distance from stockwater, and other factors.

#298

Very little non-use is authorized on public lands in the area. Authorized non-use is so insignificant and variable that a tabulation and discussion was not included. Those operators who may be authorized non-use will not be required to activate it under the proposed action.

#299

This comment is important because there is potential for significant losses to antelope from fencing. If the new fencing combined with deep snows precluded antelope movements, several hundred or more antelope could be lost during those years when severe winters result in significant antelope movements. However, there is little information on the path of these migrations and they appear to not follow the same path each time they occur. The proposed fence mileage, although large in absolute terms, is a very small percentage of the existing fences already in the path of these migrations. Given the fact that the existing fences have not led to the mortality of large numbers of migrating antelope, it is unlikely that a small percentage increase in the amount of fence will significantly add to antelope mortality. Nevertheless, mitigating measure no. 7 on page 4-1 will be rigorously applied with regard to the new fences particularly in the area east of the Little Rocky Mountains. Should site-specific analyses made in accordance with mitigating measure no. 7 reveal potential severe conflicts between antelope and fences, appropriate mitigating measures such as the use of letdown fences will be taken.

The following should be added to the paragraph under Antelope on page 3-18:

> A possible exception would be during occasional severe winters when antelope migrate across the plains east of Little Rockies, southward across the plains, and down into the Missouri Breaks across the ice on Fort Peck Reservoir and on further southward. If proposed fences were in the path of this migration, several hundred or more antelope could be lost in a given winter. However, the fact that the proposed fences (although extensive incrementally) are a very small percentage of the existing fences in the area and the fact that significant antelope die offs from fence entanglement have not been recorded in this area indicate that significant losses from the proposed fences are unlikely.

#300

See response to comments #100 and #250.

In the last sentence of the second paragraph under wildlife on page 3-16, the word "insignificant" should be "insufficient."

#301

In each case, water from water developments would be available to wildlife in rested pastures. Water from spring developments would also be available, and the tank at each spring development would have an overflow and be equipped with bird ramps. The original spring site would be fenced to prevent damage from livestock and in some cases, but not all, residual water would be available at the original site as well as the new stock watering site. The proposed action includes a total of 25 springs (Table 1-5 in the DES). See page A-32 for a drawing of a typical spring development.

Experience shows fencing the upper portions of reservoirs requires tremendous amounts of maintenance. The best option is to fence the entire reservoir with a watering tank below the dam. It is correct that large benefits to waterfowl and a variety of other game and non-game species including fish could be achieved by fencing selected reservoirs. Fisheries reservoirs in the rolling and high plains, as opposed to the breaks portion of the ES area, would be prime candidates. It is recognized that fencing selected reservoirs is a viable option available to BLM; this option will be considered by the Area Manager involved during implementation of the selected plan.

#302

See response to comments #1 and #276.

Prescribed burning was considered as a possible method of sagebrush control. However, the methods discussed in the proposed action are considered to be more suitable for the area in question. For example, in the Hay Coulee area, there is a question whether there is sufficient vegetation between sagebrush plants to provide enough fuel for a successful burn. Prescribed burning is analyzed as part of the livestock forage maximization alternative (page 8-25 of the DES).

#303

What this comment suggests is included in the BLM proposal. See the last two paragraphs of the response to comment #93. Also see item 4 under Studies and Monitoring Programs, page 4-4 of the DES.

#304

Although the assessment of wildlife impacts is admittedly subjective, it is our conclusion that while some species (perhaps mule deer) will decrease, other species (such as waterfowl) will increase and in balance the positive benefits from vegetation enhancement will outweigh the negative effects of the proposed action by about 6%. As explained in the third paragraph under Wildlife on page 3-16 of the DES, this 6% increase in wildlife is based not only on expected forage increases, but also on improved cover and general ecological conditions, as well as site-specific wildlife considerations generated through interdisciplinary reviews.

See response to comments #245 and #283.

April 29, 1979

John Fields, District Manager
Lewistown District
Bureau of Land Management
P.O. Box 1160
Lewistown, MT 59457

Dear Mr. Fields,

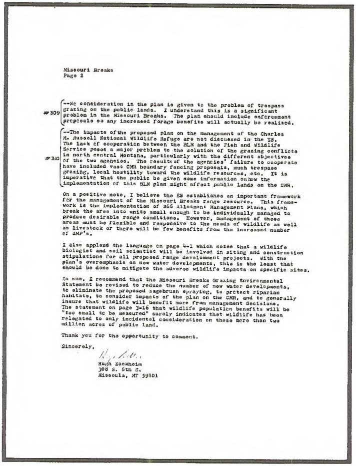
I have reviewed the Draft Missouri Breaks Grazing Environmental Statement with particular reference to the impacts on wildlife. In general, I believe the plan is characterised by seriously inadequate consideration of the wildlife resource. I strongly hope that the plan will be revised if this document is going to approach BLM's multiple-use obligations in terms of wildlife on the public lands. Discussion of some specific inadequacies follows:

#305 --The extraordinary number of water developments recommended in the ES will have the effect of distributing cattle into areas now occupied primarily by wildlife. The impacts, particularly on mule deer habitat in the riverbreaks type, will be strongly adverse. "Significant local reductions" in mule deer populations (page 3-18) are not acceptable when the plan contains essentially no specific proposals to benefit mule deer habitat in the study area. In addition, water developments are going to be adverse to sharptail grouse, by reducing the amount of residual vegetation for nesting coverin newly grazed areas and by increasing cattle use of presently unused coulees, which now provide important grouse food and cover.

#306 --The proposal to spray sagebrush on 2,236 acres is totally unacceptable from a wildlife standpoint--in fact, the "beneficial" long term impact of this action as mentioned on page 3-9 appears to be pure fabrication. No specifics are given as to current wildlife use of the area, what function the area serves for winter habitat for big game or birds, what the current sagebrush cover percentage is and what spraying will result in ,etc. The basic consideration is that grass production will increase and livestock will have more forage. This approach clearly neglects wildlife multiple-use values.

#307 --Actions must be implemented to protect the integrity of riparian zones in the study area. Simply acknowledging that these areas (page 3-18) "would remain far below their potential for white-tailed deer and other wildlife" is not consistent with the BLM's obligation to provide for wildlife values. A riparian zone management plan should be included in the ES and this plan should contain strict provisions for habitat protection and improvement.

#308 --Decisions on implementation of intensive grazing management systems should not be made in the absence of knowledge about important breeding and wintering grounds for sharptail and sage grouse. The ES should contain language which allows for modification of grazing systems, pasture boundaries, etc., when areas with high wildlife values are identified through subsequent field observations.



Missouri Breaks
Page 2

#309 --No consideration in the plan is given to the problem of trespass grazing on the public lands. I understand this is a significant problem in the Missouri Breaks. The plan should include enforcement proposals so any increased forage benefits will actually be realized.

#310 --The impacts of the proposed plan on the management of the Charles M. Russell National Wildlife Refuge are not discussed in the ES. The lack of cooperation between the BLM and the Fish and Wildlife Service poses a major problem to the solution of the grazing conflicts in north central Montana, particularly with the different objectives of the two agencies. The results of the agencies' failure to cooperate have included vast CMR boundary fencing proposals, much trespass grazing, local hostility toward the wildlife resources, etc. It is imperative that the public be given some information on how the implementation of this BLM plan might affect public lands on the CMR.

On a positive note, I believe the ES establishes an important framework for the management of the Missouri Breaks range resource. This framework is the implementation of 266 Allotment Management Plans, which break the area into units small enough to be individually managed to produce desirable range conditions. However, management of these areas must be flexible and responsive to the needs of wildlife as well as livestock or there will be few benefits from the increased number of AMP's.

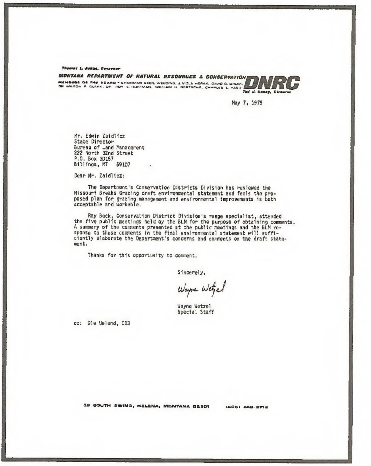
I also applaud the language on page 4-1 which notes that a wildlife biologist and soil scientist will be involved in siting and construction stipulations for all proposed range development projects. With the plan's overemphasis on new water developments, this is the least that should be done to mitigate the adverse wildlife impacts on specific sites.

In sum, I recommend that the Missouri Breaks Grazing Environmental Statement be revised to reduce the number of new water developments, to eliminate the proposed sagebrush spraying, to protect riparian habitats, to consider impacts of the plan on the CMR, and to generally insure that wildlife will benefit more from management decisions. The statement on page 3-16 that wildlife population benefits will be "too small to be measured" surely indicates that wildlife has been relegated to only incidental consideration on these more than two million acres of public land.

Thank you for the opportunity to comment.

Sincerely,

Hugh Zackheim
308 S. 6th E.
Missoula, MT 59801



Thomas L. Judge, Governor
MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION DNRC
MEMBERS OF THE BOARD - CHAIRMAN CECIL WEEDING, J. VIOLA HERAK, DAVID G. DRUM, DR WILSON F. CLARK, DR. ROY C. HUFFMAN, WILLIAM H. BERTSCHE, CHARLES L. HASH
Ted J. Doney, Director

May 7, 1979

Mr. Edwin Zaidlicz
State Director
Bureau of Land Management
222 North 32nd Street
P.O. Box 30157
Billings, MT 59107

Dear Mr. Zaidlicz:

The Department's Conservation Districts Division has reviewed the Missouri Breaks Grazing draft environmental statement and feels the proposed plan for grazing management and environmental improvements is both acceptable and workable.

Ray Beck, Conservation District Division's range specialist, attended the five public meetings held by the BLM for the purpose of obtaining comments. A summary of the comments presented at the public meetings and the BLM response to these comments in the final environmental statement will sufficiently elaborate the Department's concerns and comments on the draft statement.

Thanks for this opportunity to comment.

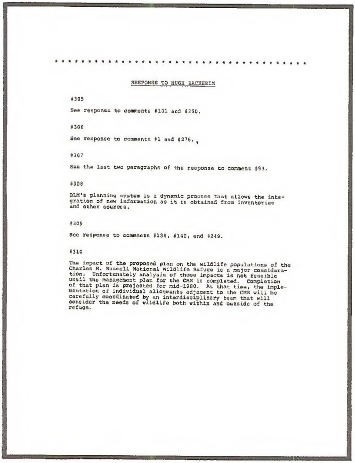
Sincerely,

Wayne Wetzel

Wayne Wetzel
Special Staff

cc: Ole Ueland, CDD

32 SOUTH EWING, HELENA, MONTANA 59601 (406) 449-3712



* *

RESPONSE TO HUGH ZACKHEIM

#305

See response to comments #101 and #250.

#306

See response to comments #1 and #276.

#307

See the last two paragraphs of the response to comment #93.

#308

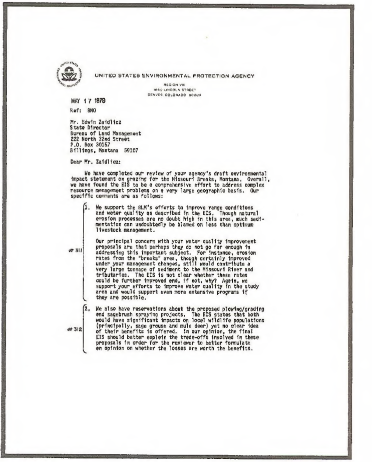
BLM's planning system is a dynamic process that allows the integration of new information as it is obtained from inventories and other sources.

#309

See response to comments #138, #140, and #249.

#310

The impact of the proposed plan on the wildlife populations of the Charles M. Russell National Wildlife Refuge is a major consideration. Unfortunately analysis of those impacts is not feasible until the management plan for the CMR is completed. Completion of that plan is projected for mid-1980. At that time, the implementation of individual allotments adjacent to the CMR will be carefully coordinated by an interdisciplinary team that will consider the needs of wildlife both within and outside of the refuge.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
1860 LINCOLN STREET
DENVER COLORADO 80295

MAY 17 1979

Ref: 8MO

Mr. Edwin Zaidlicz
State Director
Bureau of Land Management
222 North 32nd Street
P.O. Box 30157
Billings, Montana 59107

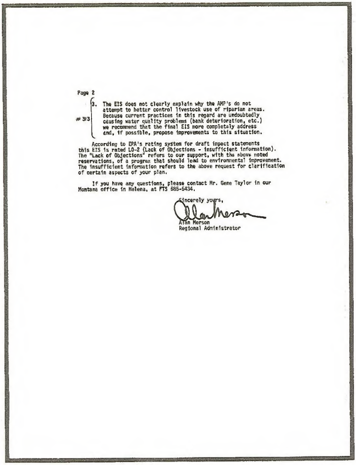
Dear Mr. Zaidlicz:

We have completed our review of your agency's draft environmental impact statement on grazing for the Missouri Breaks, Montana. Overall, we have found the EIS to be a comprehensive effort to address complex resource management problems on a very large geographic basis. Our specific comments are as follows:

#311 1. We support the BLM's efforts to improve range conditions and water quality as described in the EIS. Though natural erosion processes are no doubt high in this area, much sedimentation can undoubtedly be blamed on less than optimum livestock management.

Our principal concern with your water quality improvement proposals are that perhaps they do not go far enough in addressing this important subject. For instance, erosion rates from the "breaks" area, though certainly improved under your management changes, still would contribute a very large tonnage of sediment to the Missouri River and tributaries. The EIS is not clear whether these rates could be further improved and, if not, why? Again, we support your efforts to improve water quality in the study area and would support even more extensive programs if they are possible.

#312 2. We also have reservations about the proposed plowing/grading and sagebrush spraying projects. The EIS states that both would have significant impacts on local wildlife populations (principally, sage grouse and mule deer) yet no clear idea of their benefits is offered. In our opinion, the final EIS should better explain the trade-offs involved in these proposals in order for the reviewer to better formulate an opinion on whether the losses are worth the benefits.



Page 2

# 313 3. The EIS does not clearly explain why the AMP's do not attempt to better control livestock use of riparian areas. Because current practices in this regard are undoubtedly causing water quality problems (bank deterioration, etc.) we recommend that the final EIS more completely address and, if possible, propose improvements to this situation.

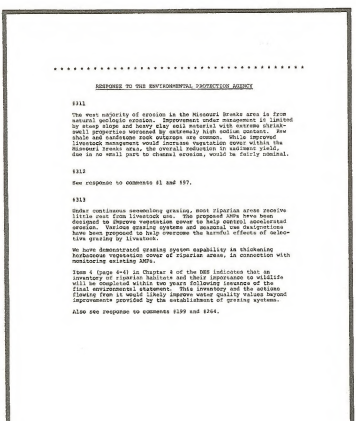
According to EPA's rating system for draft impact statements this EIS is rated LO-2 (Lack of Objections - insufficient information). The "Lack of Objections" refers to our support, with the above noted reservations, of a program that should lead to environmental improvement. The insufficient information refers to the above request for clarification of certain aspects of your plan.

If you have any questions, please contact Mr. Gene Taylor in our Montana office in Helena, at FTS 585-5434.

Sincerely yours,

Alan Merson

Alan Merson
Regional Administrator



* * *

RESPONSE TO THE ENVIRONMENTAL PROTECTION AGENCY

#311

The vast majority of erosion in the Missouri Breaks area is from natural geologic erosion. Improvement under management is limited by steep slope and heavy clay soil material with extreme shrink-swell properties worsened by extremely high sodium content. Raw shale and sandstone rock outcrops are common. While improved livestock management would increase vegetation cover within the Missouri Breaks area, the overall reduction in sediment yield, due in no small part to channel erosion, would be fairly nominal.

#312

See response to comments #1 and #97.

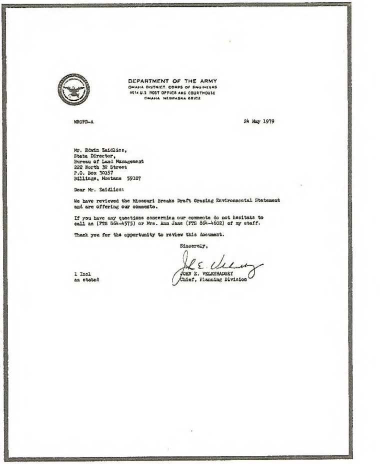
#313

Under continuous seasonlong grazing, most riparian areas receive little rest from livestock use. The proposed AMPs have been designed to improve vegetation cover to help control accelerated erosion. Various grazing systems and seasonal use designations have been proposed to help overcome the harmful effects of selective grazing by livestock.

We have demonstrated grazing system capability in thickening herbaceous vegetation cover of riparian areas, in connection with monitoring existing AMPs.

Item 4 (page 4-4) in Chapter 4 of the DES indicates that an inventory of riparian habitats and their importance to wildlife will be completed within two years following issuance of the final environmental statement. This inventory and the actions flowing from it would likely improve water quality values beyond improvements provided by the establishment of grazing systems.

Also see response to comments #199 and #264.



DEPARTMENT OF THE ARMY
OMAHA DISTRICT, CORPS OF ENGINEERS
6014 U.S. POST OFFICE AND COURTHOUSE
OMAHA, NEBRASKA 68102

MROPD-A

24 May 1979

Mr. Edwin Zaidlics,
State Director,
Bureau of Land Management
222 North 32 Street
P.O. Box 30157
Billings, Montana 59107

Dear Mr. Zaidlicz:

We have reviewed the Missouri Breaks Draft Grazing Environmental Statement and are offering our comments.

If you have any questions concerning our comments do not hesitate to call me (FTS 864-4575) or Mrs. Ann Jans (FTS 864-4602) of my staff.

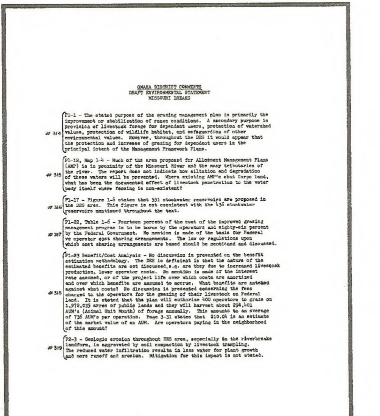
Thank you for the opportunity to review this document.

Sincerely,

John E. Velehradsky

1 Incl
as stated

JOHN E. VELEHRADSKY
Chief, Planning Division



OMAHA DISTRICT COMMENTS
DRAFT ENVIRONMENTAL STATEMENT
MISSOURI BREAKS

# 314 P1-1 - The stated purpose of the grazing management plan is primarily the improvement or stabilization of range conditions. A secondary purpose is provision of livestock forage for dependent users, protection of watershed values, protection of wildlife habitat, and safeguarding of other environmental values. However, throughout the DES it would appear that the protection and increase of grazing for dependent users is the principal intent of the Management Framework Plans.

# 315 P1-12, Map 1-4 - Much of the area proposed for Allotment Management Plans (AMP) is in proximity of the Missouri River and the many tributaries of the river. The report does not indicate how siltation and degradation of these waters will be prevented. Where existing AMP's abut Corps land, what has been the documented effect of livestock penetration to the water body itself where fencing is non-existent?

# 316 P1-17 - Figure 1-6 states that 551 stockwater reservoirs are proposed in the DES area. This figure is not consistent with the 436 stockwater reservoirs mentioned throughout the text.

# 317 P1-22, Table 1-6 - Fourteen percent of the cost of the improved grazing management program is to be borne by the operators and eighty-six percent by the Federal Government. No mention is made of the basis for Federal vs operator cost sharing arrangements. The law or regulations upon which cost sharing arrangements are based should be mentioned and discussed.

# 318 P1-23 Benefit/Cost Analysis - No discussion is presented on the benefit estimation methodology. The DES is deficient in that the nature of the estimated benefits are not discussed, e.g. are they due to increased livestock production, lower operator costs. No mention is made of the interest rate assumed, or of the project life over which costs are amortized and over which benefits are assumed to accrue. What benefits are matched against what costs? No discussion is presented concerning the fees charged to the operators for the grazing of their livestock on Federal land. It is stated that the plan will authorize 400 operators to graze on 1,972,035 acres of public lands and they will harvest about 294,401 AUM's (Animal Unit Month) of forage annually. This amounts to an average of 736 AUM's per operation. Page 3-31 states that $10.04 is an estimate of the market value of an AUM. Are operators paying in the neighborhood of this amount?

# 319 P2-3 - Geologic erosion throughout DES area, especially in the riverbreaks landform, is aggravated by soil compaction by livestock trampling. The reduced water infiltration results in less water for plant growth and more runoff and erosion. Mitigation for this impact is not stated.

P2-29 - Competition for forage between livestock and wildlife is keen.
Mule deer populations have declined for two decades. Part of the reason
is sagebrush manipulation and the wintering of livestock on key mule
deer winter ranges. Whitetail deer forage extensively in bottomlands
and coulees and compete with cattle for browse, especially during fall
and winter. Antelope and livestock both winter in sagebrush areas. The
antelopes winter survival is largely dependent on availability of sagebrush.
#320 How is this impact to be mitigated? The report does not detail how the
negative impact of establishing new AMP's in areas where mule deer concentrate
is to be mitigated, e.g. Arrow Creek area in Fergus County, and also near
Murphy Creek. Areas of year long habitat are also to be included in
the AMP's. Whitetail deer concentrate in Fergus and Petroleum Counties
and some of these areas are also earmarked to become AMP's. Antelope
have only a few areas of value where they have satisfactory conditions
for surviving severe winters or living all year long, but some of these
prime areas are proposed as new AMP's. Page 3-30 indicates that livestock
would continue to utilize those areas of the Missouri River which have
been designated Recreational or Wild. This policy is in conflict with
the intent of the Federal Law (Wild and Scenic Rivers Act - PL 90-542 of
1968 as amended), both as regards esthetics and utilization by the public
#321 if it substantially interferes with the public use and enjoyment. The
report indicates that cottonwood groves near the river intended for camping
are being impacted negatively and will eventually be lost. No mitigation
to remedy this situation has been detailed.

P8-12 - Wilderness areas would be negatively impacted visually, and
the wilderness integrity would be degraded by any and all forms of
#322 livestock grazing. Page 8-16 indicates the wilderness areas would be
enhanced by the elimination of livestock grazing on public lands. No
mitigation has been proposed.

P8-15 - The report states that the elimination of grazing on Federal
lands could force many ranchers out of business. Is this because the
#323 grazing on Federal lands constitutes a significant Federal subsidy?
This should be documented.

P8-16 - It is stated that socio-cultural attitudes could be expected to
be almost uniformly against elimination of grazing. The text states that
the attitudes which include resistance to major governmental interference
would be outraged. This is a confusing statement inasmuch as it is difficult
to ascertain how the Federal Government can be interfering in its own
functions on Federal lands. The elimination of livestock grazing on Federal
#324 lands would appear to be a reduction of governmental interference in
the free market economy. This should be clarified.

P8-22, Alternate C - The report states that the level of government
involvement would increase if less grazing on public lands was allowed.
This would seem to be as inconsistent, as discussed in the previous comment.

* *

RESPONSE TO THE CORPS OF ENGINEERS

#314

Because the Missouri Breaks ES analyzes the impacts of an improved grazing management program and not all resource programs on the public lands, the emphasis throughout the document was on livestock grazing. We believe that the multiple use mix of resource values resulting from the Management Framework Plans is a reasonable mix based on all resource values existing in the area. Also see responses to comments #90 and #201.

#315

The analysis of impacts to soils on page 3-2 of the DES indicates that implementation of the improved grazing management program would benefit watershed values through reduction in surface runoff and associated erosion and sedimentation. Increases in vegetative cover and litter and improved range condition would reduce siltation in the Missouri River and its tributaries. The estimated change in sedimentation with the proposed action is provided in Table 3-2, page 3-4 of the DES.

Concentration of livestock along the shoreline of the Missouri River has resulted in spot overgrazing. Because lands adjacent to the Missouri River or Fort Peck Reservoir include intermingled private land and lands administered by BLM, the U.S. Fish and Wildlife Service, and the Corps of Engineers, cooperation of all affected parties is necessary to effectively manage livestock grazing and alleviate such problems.

#316

The figure of 551 stock water reservoirs is incorrect. Four hundred and thirty-six (436) reservoirs are proposed.

#317

The range improvements shown in Table 1-6 do not directly indicate cost sharing. Because public and private lands are often mixed within AMPs, a cooperative plan such as an AMP will include improvements on private and public lands. The costs shown for the livestock operators in Table 1-6 include only those projects on private land. Range improvements on public lands are generally paid for with public funds. In some instances, such as interior AMP pasture fences, the federal government provides the necessary materials and the operator builds and maintains the fence under a cooperative agreement. No specific cost sharing formula is established by law or regulation.

* *

#318

The benefit/cost analysis completed for each AMP is only one of many factors used to determine the priority of, and need for, such a plan. A discount rate of 6 3/8 percent (1977 Water Resource Council guidelines) was used over a 50 year period in the calculation of the benefit/cost ratio. Costs included in the calculation routine were for government and non-government construction and maintenance of range improvements, costs for range use supervision and studies, and livestock movement cost. Benefits were based on increases in hunter days for elk, antelope, white-tailed deer, mule deer, waterfowl and upland game, nonwildlife related visitor days, AUMs, herd size, cow weights, percent cull cows per year, percent calf crop, calf weight, and percent death loss. Also see response to comment #86.

The Public Rangelands Improvement Act of 1978 established a grazing fee formula for the grazing years 1975 through 1985. The 1979 grazing fee established by that Act is $1.89 per AUM. The $10.04 per AUM used on page 3-31 is the average business activity generated per AUM from 1970 to 1975 (see Table 2-25 on page 2-75). This figure is a measure of business activity and not a direct indication of market value. The first sentence in the last paragraph on page 3-31 should be changed to read as follows: "Assuming that approximately $10.04 of business activity is generated per AUM in the nine-county ES area, it appears . . ." Also see responses to comments #11 and #160.

#319

A significant objective of the proposed action is the protection or enhancement of watershed values. As discussed in the soils section of Chapter 3 (pages 3-2 to 3-5 of the DES), improved range condition, better water infiltration, decreased surface runoff and sedimentation, and increased litter and vegetative cover will result from the proposal. These changes are beneficial and thus no mitigating measures are necessary.

#320

Although sagebrush manipulations and the wintering of livestock on mule deer winter ranges have caused problems for some local deer populations, there is no information to indicate that they were a significant cause of the mule deer population declines of the last two decades. See response to comment #5.

Impacts to mule deer, white-tailed deer, and antelope populations are discussed in some detail in the first nine paragraph under Wildlife on pages 3-16 and 3-17. As explained in response to comments #1, #72, and #228 and mitigation measure no. 7 on page 4-1 of the DES, these impacts would be mitigated primarily through site-specific interdisciplinary analysis prior to implementation of AMPs or range improvements.

* *

#321

Continued livestock use along the Upper Missouri Wild and Scenic River is not in conflict with the Wild and Scenic Rivers Act. Public Law 94-486 which amended the Wild and Scenic Rivers Act to include the Missouri provides the following language:

> "Sec. 203(a) The Secretary of the Interior shall manage the river area pursuant to the provisions of this Act and the Wild and Scenic Rivers Act, and in accordance with the provisions of the Taylor Grazing Act (48 Stat. 1269), as amended (43 USC 315), under principles of multiple use and sustained yield, and with any other authorities available to him for the management and conservation of natural resources and the protection and enhancement of the environment . . ."

Livestock grazing clearly is an allowed use; however, as discussed on page 1-25 of the DES, it must be consistent with the values which allowed the river to become a component of the National Wild and Scenic Rivers System. Also see response to comment #95.

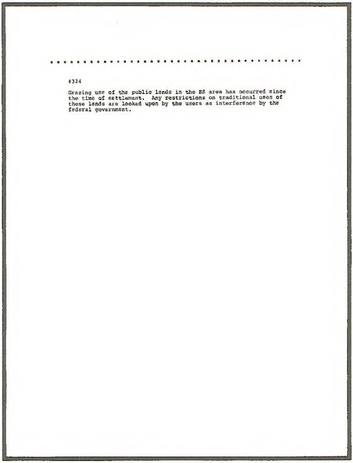
See response to comment #264 regarding the relationship of livestock grazing to the cottonwood groves along the Missouri River.

#322

The wilderness section in Chapter 3 of the DES has been revised. See Part 2 (revised DES pages 3-39, 4-2, and 4-4) and response to comment #204. No activities would be allowed which would impair an area's wilderness suitability.

#323

Because of the intermingled nature of public and private lands in the ES area, many ranchers are dependent on the public lands for forage to sustain a year long livestock operation. Because grazing fees are established by Congress and are not based on fair market value, grazing of public lands could be considered a subsidy. However, as discussed in the response to comment #91, grazing fees, more than any other resource on the public lands except for leasable minerals, provide a substantial contribution to the federal treasure. The expenditure of federal funds for other resource values such as watershed and wildlife protection and enhancement can also be considered a subsidy because private interests benefit.



* *

#324

Grazing use of the public lands in the ES area has occurred since the time of settlement. Any restrictions on traditional uses of these lands are looked upon by the users as interference by the federal government.

PART 2

MODIFICATIONS AND CORRECTIONS

Revisions to the draft environmental statement (DES) are based on public comments, reevaluation by BLM of the content based on new or revised data, identification of errors or omissions, and changes in policy or guidance due to new laws or regulations.

Where significant changes are needed in the DES, the entire page(s) has been reprinted with the changes highlighted in italics. This allows the reader to readily refer from this document to the appropriate page in the DES and see the changes that were made. Page numbers in Part 2 are the same as those in the DES. No pages in Chapters 6 or 7 are reprinted in Part 2. An errata sheet for the DES which includes minor editorial modifications is included at the end of Part 2.

CHAPTER 1

DESCRIPTION OF THE PROPOSED ACTION

> Livestock may be excluded from high visitor use areas, such as camping sites, through fencing or changes in use seasons.

Resource management objectives for livestock grazing on BLM administered lands which apply to the entire 149 miles of river corridor, include:

> *Specific objectives in each allotment management plan are related to established study plots and transects. Expected increases in desirable forage species for livestock and wildlife and improved watershed conditions are quantified. These trend studies will be used to monitor the success of each AMP in accomplishing these objectives.*
>
> *One hundred percent of vegetative increases resulting from implementation of grazing management systems will be allocated to watershed protection wherever trend studies indicate unstable soils and/or ground cover of less than 70 percent.*
>
> *AMPs which include range improvements to facilitate management of livestock generally include the objective of designing such facilities in a rustic fashion or screening them from view.*
>
> *Exclusion of livestock and big game will be made on selected study sites to analyze the effects of trampling and browsing on young cottonwoods.*

The management objectives by river segment are more specific. In the segments of the Missouri River classified as recreational or scenic, livestock facilities will be restricted by the objectives established by visual resource management class II. This provides that changes caused by a management activity should not be evident in the characteristic landscape.

The wild segments of the river are visual resource management class I which provides primarily for natural ecological changes. In accordance with this and subject to valid existing rights, stringent stipulations to protect the visual resources within the "seen" area shall be attached to all licenses, leases, or permits issued. New range improvements will be compatible with the wild character of the river segment, subject to valid existing rights. Where existing range improvements are found to detract from the values to be preserved, cooperative efforts will be undertaken with the range user to bring such improvements into conformance with riverway objectives.

National Park Service

The Lewis and Clark National Historic Trail (established on November 10, 1978, by Public Law 95-625) would follow the Missouri River from St. Louis to the headwaters. The trail would provide an historically based recreation experience and commemorate the journey of Lewis and Clark. This trail would be a water trail, with recreation development primarily on existing federal lands. The National Park Service is the lead agency for preparing the comprehensive plan for the trail. Planning for the trail is expected to begin in late 1979 and be completed by October 1981. After planning is complete, the National Park Service will seek cooperative agreements for management of the trail on BLM lands.

Bureau of Indian Affairs

The Bureau of Indian Affairs is responsible for the administration of Indian lands and water. In proximity or adjacent to the Missouri Breaks ES area are three reservations: the Fort Peck, Fort Belknap, and Rocky Boy. The Indians on each of these reservations have some claim to the use of the waters which are located on or which flow through or along the boundaries of the Indian reservation thus affecting operators and water developments on allotments within affected watersheds.

Within the South Bearpaw Planning Unit, 3,464 acres are in Indian ownership. These are tribal-administered lands without reservation status. Indians have preference in obtaining grazing rights on these scattered tracts; however, leases are frequently granted to surrounding non-Indian landowners. Because of the mixture of unfenced public, private, and Indian lands, the administration of AMPs and trespass violations is often difficult.

Fish and Wildlife Service

In 1936 the 1,100,000 acre Fort Peck Game Range was withdrawn to conserve and develop natural wildlife resources and to protect and improve public grazing lands and natural forage resources. Maintenance of populations of antelope and sharp-tailed grouse was of primary concern, with additional natural forage being allocated to sustaining a balanced wildlife population. Beyond this base, forage resources could be made available for domestic livestock use. The Range was redesignated the Charles M. Russell National Wildlife Range (now Refuge) in 1963, with primary responsibility for policy and programs vested in the U.S. Fish and Wildlife Service. Allotments that adjoin the wildlife refuge are licensed by BLM only for that area lying outside the wildlife refuge boundary, even though pastures may extend into the wildlife refuge. Where control of livestock numbers from adjacent areas is desired, the Fish and Wildlife Service has proposed fencing segments of the wildlife refuge boundary. An environmental impact assessment has been completed by the Fish and Wildlife Service for fencing of the entire wildlife refuge boundary. Long range planning, including meetings with individual operators and the interested public, is ongoing.

Allotment management plans along the Charles M. Russell National Wildlife Refuge boundary would not be implemented without close coordination with the affected livestock operators and the U.S. Fish and Wildlife Service. Where specific resource objectives are compatible on the refuge and adjacent BLM lands, cooperative grazing management would be sought. Where specific resource objectives between the two agencies differ, allotment management plans would be implemented only when it has been determined by BLM that such action will not waste dollars or manpower or foreclose future options for cooperation with the Fish and Wildlife Service. Because of different management philosophies between the two agencies (single purpose emphasis for the Fish and Wildlife Service and multiple use for BLM) it may be necessary to physically separate the two jurisdictions in selected areas. The management plan for the refuge is scheduled for completion in mid-1980. When the refuge management plan is complete and specific management goals are identified by area on the refuge, cooperation between the two agencies can more fully occur.

The Fish and Wildlife Service also administers about 7,900 acres adjacent to Wild Horse and War Horse Lakes and Yellow Water Reservoir in Petroleum County. In recent years, these properties have been grazed as part of allotments administered by BLM under a cooperative agreement with the Fish and Wildlife Service; however, this cooperative agreement expired in January 1978, and at the end of the 1978 grazing season, management will revert to the Fish and Wildlife Service. Hunting is allowed on these properties but except for the grazing program, they have not been actively managed. Because fences do not separate wildlife refuge lands from adjacent public and private lands, the Fish and Wildlife Service will likely continue to license grazing at the same levels of use and during the same time periods as in previous years. Depending on the future management of refuge lands, as many as four AMPs may need revision (South War Horse 5048, War Horse 4875, Yellow Water 5040, and King 5055).

Environmental Protection Agency

Section 208 of the Federal Water Pollution Control Act (FWPCA) provided local governments with the necessary authority for the control of point and nonpoint sources of water pollution. The Montana Department of Health and Environmental Sciences has been designated by the Environmental Protection Agency as the state agency responsible for 208 planning. A cooperative agreement between the Montana State Office of BLM and the State of Montana was signed in mid-1977. This agreement

CHAPTER 2

DESCRIPTION OF THE ENVIRONMENT

Institution submitted a list of plant species suspected of being threatened or endangered in the United States. This list was printed in the Federal Register of July 1, 1975. There were ten species located in Montana. This list was later revised by the Office of Endangered Species of the U.S. Fish and Wildlife Service and published in the Federal Register of June 16, 1976. This new list eliminated eight of the previously included species but added one other. Thus, only three remained.

The findings of Watson (1976) were in agreement with the revised threatened and endangered list for the species *Silene spaldingii* and *Trisetum orthochaetum*, but reported that *Phlox missoulensis*, the third species on the revised list of Montana species, was not at the present time either threatened or endangered. He also concluded that *Grindelia howellii* and *Penstemon lemhiensis* which were not on the list should be included.

Therefore, based on Watson's investigation, only four species should be considered at this time as potentially endangered in Montana. These four species--*Silene spaldengii*, *Grindelia howellii*, *Penstemon lemhiensis*, and *Trisetum orthochaetum* are all found only on the western side of the state.

The species *Rorippa calycena*, known to occur in eastern Montana, was reported by Watson as needing further exploration before its status is determined. Therefore, as this species may potentially be found within the ES area, for purposes of this analysis it will be considered as if it were threatened.

WILDLIFE

Mammals

Mule Deer

Mule deer are the most abundant big game animal in the ES area with an estimated population between ***85,000 and 99,000*** (Table 2-12 and Figure 2-5). This population is relatively low compared to the deer populations of the mid 1950s. Mule deer populations declined starting in the late 1950s and have remained at moderate to low densities from the early 1970s to the present time. ***This decline coincided with a general decline in deer populations throughout the west. Research*** on the causes of mule deer population fluctuations has been generally inconclusive. ***Although hunting, predation, and other factors can influence deer populations,*** many authors have concluded that, '. . . where deer are on a high quality diet, other environmental factors are not as important' (Pengelly 1976). Mackie (1970) considers the occurrence of drought every three to four years the basic limiting factor in big game/livestock management in this area. Mule deer competition with livestock for forage (South Bearpaw and other URAs) is most significant from October through June. Sagebrush manipulations have reduced mule deer habitat (South Bearpaw Planning Unit URA). Probably the most serious situation occurs when livestock are wintered, often with supplemental feed, on key winter ranges for mule deer. This problem is most common, however, on private land in the mountain foothills (Belt Planning Unit URA). In some areas poor habitat conditions have resulted from overuse during periods of high deer populations. Without the proposed action, mule deer populations are expected to continue to increase for the next few (perhaps 3 to 4) years. Beyond that, the timing, direction, and magnitude of their fluctuations are impossible to predict.

High value mule deer habitat in the Missouri Breaks is characterized by the pine/juniper and sagebrush/wheatgrass vegetation types. High value prairie habitat is characterized by coulee heads containing deciduous browse with an interspersion of palatable forbs along intermittent streams and broken badlands. Important habitats that have been identified are delineated and acreages tabulated on Map 2-6. Most of the 487,000 acres of winter concentration areas are in mountainous areas where there are no AMPs, while most of the identified high value year round habitat is within the AMPs. The only areas of non-habitat are areas of intensive agriculture, mostly near the south half of the border between Judith Basin and Fergus Counties. ***It can be seen by comparing Maps 2-6 and 2-22 of the DES that a large precentage of the several mule deer habitats (as well as other important wildlife habitats) occur on private land.***

Mackie (1970) showed that (in the breaks) browse was the most important forage classification for mule deer in all seasons, increasing from 56 percent use in spring to 97 percent use in winter. Forbs were most important (41 percent of the diet) in the summer time, grasses most important (11 percent of the diet) in the spring. Key forage sources for mule deer are skunkbush sumac and rubber rabbitbrush. When or where these plants are abundant and moderately utilized during summer and fall, big sagebrush and Rocky Mountain juniper are of secondary importance. Yellow sweetclover is also important to mule deer, and its heavy use during years of abundance can relieve pressure on key browse species.

White-tailed Deer

Roughly 9,000 to 14,000 white-tailed deer probably occur within the ES area (Table 2-12). They are most abundant along the bottomlands of the major waterways such as the Missouri, Musselshell, and Judith Rivers. However, whitetails also occur along lesser drainages, and they have moved into

Figure 2-5 Mule deer. This is the most abundant big game animal in the ES area. There is evidence that drought and competition with livestock, ***in addition to hunting, predation, and severe winters,*** are important limiting factors.

TABLE 2-12
Estimation of Big Game Populations Within the ES Area (1)

	(A) Harvest in Hunting Units Represented in the Study Area (2)	(B) Ratio: Area of Study Area / Area of Hunting Units	(C) Estimated Proportion of Population Harvested	(D) Estimated Population Within the Study Area (3)	Rounded Estimate	60% Probability Bracket
Mule Deer	8,168	.45	.04	91,890	92,000	85,000-99,000
White-tailed Deer	3,831	.45	.15	11,493	11,500	9,000-14,000
Antelope	7,291	.56	.25	16,624	16,500	13,000-20,000
Elk	599	.8(4)	.20	2,235	2,000	1,000-3,000(5)

(1) These estimates of big game populations within the ES area are not endorsed by the Montana Department of Fish and Game. Nevertheless, they are the best estimates available within the time constraints of this document. It is the judgment of the BLM biologist who prepared this report that the probability is about 60 percent that actual mean populations of the species indicated (which, of course, vary considerably from year to year due to climatic and other conditions) fall within the ranges indicated.

(2) Montana Department of Fish and Game, 1976-77 Harvest Data.

(3) D = A x B ÷ C

(4) Elk hunting was allowed in only 10 of the 30 hunting units represented in the study area. About 80 percent of the acreage of these units is within the study area.

(5) Available information (see Elk in Chapter 2, above) indicates that the elk population in the ES area is toward the upper end of the bracket.

Herds are kept within the carrying capacity by annual harvest. Most elk in the mountains landform summer at higher elevations and winter on the lower mountain foothills. Particularly in the Highwood Mountains area, landowners often complain that elk move to lower elevations and winter on private lands. The elk herd in the Judith Mountains numbers about 100 animals, its expansion being restricted by a lack of winter range in areas where landowners will tolerate the presence of elk.

Most of the approximately 1,000 elk in the breaks area occur north of the river. However, yearlong use occurs in the breaks in northeast Fergus County, and some winter use by elk of the breaks south of the Missouri from the Musselshell River to Seven Blackfoot Creek is probable but not documented. Elk have been recently observed along Cow Creek and elsewhere in the South Bearpaw Planning Unit in southern Blaine County. Since the elk in the Missouri Breaks region generally use habitat on both sides of the Charles M. Russell National Wildlife Refuge, the condition of their range depends partly upon coordination between BLM and the U.S. Fish and Wildlife Service.

Elk have recently been observed in the Little Rocky Mountains (Little Rockies URA). Desirable aspects of this area for elk habitat include the remoteness due to the mountain character, integration of timber and park tracts, and a variety of vegetation. Motorized vehicle travel is limited, and the timber provides ample cover. Elk also occur in the southwestern part of the UL Bend Planning Unit where the breaks extend into the planning unit and in the east part of that planning unit in the breaks and Larb Hills.

South Valley County has two separate elk herds. To the southeast, 60 to 80 head overlap onto BLM lands from the Pines area of the Charles M. Russell National Wildlife Refuge. To the southwest, 130 to 140 head inhabit the Harper Ridge area of the refuge and the Timber Creek, Square Creek, and Southerland Creek regions on BLM land. These two areas in south Valley County are important to elk because of the security their rough topography provides and because of the scattered verdant spots created by natural springs. Range conditions in these areas are exceptionally good; however, the populations have not increased beyond current levels, apparently because of poaching and other human harassment.

Rocky Mountain Bighorn Sheep

Introductions of bighorn sheep in the ES area have met with only limited success because of limited winter habitat and competition with livestock (Eichhorn and Watts 1976). (See Figure 2-6.) In 1972 and 1973, 30 bighorns were introduced into the Little Rocky Mountains. This herd has had some reproduction and seems to be holding its own. Winter feed is scarce, however, and the herd feeds on the hay stacks on the adjacent private lands.

Bighorns introduced in the Missouri River Breaks of Fergus County from 1958 to 1961 increased for several years but suffered severe die-offs during the winters of 1972 and 1978 and now number only nine animals. Although their range originally included BLM land as shown on Map 2-9, it now appears to be restricted within the boundaries of the Charles M. Russell National Wildlife Refuge. Other attempted introductions within the ES area have failed.

Bighorns use forbs, shrubs, and grasses during all seasons. They are vulnerable to competition from elk, deer, and livestock (Couey and Schallenberger 1971).

Wild Horses

A band of approximately 30 horses of ***unknown status (wild or trespass)*** occurs on and adjacent to the Ervin Ridge allotment (#6212) in the South Bearpaw Planning Unit (Map 2-9). ***These*** horses compete significantly with cattle and deer for available forage. The MFP approves (WL-6) a study to document the extent of competition between the horses and wildlife on important habitat areas. ***Since these animals were not claimed during the period of August 15 to November 15, 1973, they will be considered as wild free-roaming horses and burros. Any branded animals will be removed when, and if, excess animals are gathered at some future date. BLM policy is that any horse or burro on the public lands not claimed is considered wild and free-roaming until captured, inspected, and found to be branded.***

Mountain Lion

Although mountain lions roam throughout the mountains and riverbreaks landforms within the ES area, reports of mountain lion observations are very rare. Their far ranging habits and territorial behavior preclude dense populations. Intensive hunting (outside of Montana) sometimes produces many more mountain lions than expected (Johnson and Couch 1954); however, it is judged that less than 20 occur in the ES area.

Furbearers

The most important furbearer within the ES area in terms of numbers harvested is the muskrat which occurs in most stockwater ponds and natural wetland habitats. Although data are not available, fox, coyote, and bobcat are probably the most impor-

Special Management Areas

Upper Missouri Wild and Scenic River

The National Wild and Scenic Rivers Act (as amended by Public Law 94-486) incorporated the 149-mile segment of the Missouri River from Fort Benton downstream to Fred Robinson Bridge within the National Wild and Scenic River system (see Figure 2-12). The act requires protection and preservation of the outstanding scenic, recreational, historic, and cultural values on the river.

The area is rich in wildlife, and game species are hunted actively during open seasons. About 45 species of mammals and over 200 different birds, including the protected bald (now on the threatened and endangered list) and golden eagles inhabit the area.

The sport fishery resource includes the popular paddlefish, northern pike, catfish, sturgeon, walleye, sauger, and lingcod.

Excellent sightseeing opportunities provide the recreationist with a diversity of experiences.

Recreational use of the Upper Missouri Wild and Scenic River has changed over the past 20 years. From limited use by local hunters and fishermen, use has rapidly expanded to include recreational boating and camping. All recreational uses in 1976 amounted to just over 15,000 man days. The Montana Fish and Game Department has provided limited camping facilities at Coal Banks Landing, Hole-in-the-Wall, Slaughter River, Judith Landing, Cow Island Landing, and Kipp State Part at Fred Robinson Bridge. Commercial guide services included eight outfitters as of 1978--six from Montana, one from Oregon, and one from Washington. The major use season extends from one week prior to Memorial Day to one week after Labor Day.

A conceptual plan was developed to meet legislative mandates in 1977, which outlines the management objectives and goals and identified the specific management segments along the route. A comprehensive management plan ***was finalized in October 1978***. (Additional background information concerning the Upper Missouri Wild and Scenic River along with a map of the area is located in Chapter 1, Interrelationships.)

Charles M. Russell National Wildlife Refuge (CMR)

The Charles M. Russell National Wildlife Refuge, currently managed by the U.S. Fish and Wildlife Service, provides a variety of recreational opportunities to the recreationist. Foremost are hunting and wildlife sightseeing activities. A comprehensive planning effort is currently underway for the refuge. This effort is in its early stages so no management decisions have been reached.

Square Butte

One of the most scenic and unusual geologic features in the ES area, Square Butte, stands nearly 1,700 feet above the rolling plains topography of southern Chouteau County approximately 65 miles northwest of Lewistown (see Figure 2-13).

Square Butte was designated as an Outstanding Natural Area in 1972 and qualifies as an 'instant study area' for wilderness review. The Bureau planning system emphasizes the importance of protecting and/or enhancing the scenic and recreational values in the Square Butte area.

In addition to its outstanding scenic values, Square Butte provides other recreational opportunities such as hiking, rock climbing, and hunting. The Butte is also used by academic institutions for educational purposes.

Overall, Square Butte is as untouched today as it was when it was recommended for natural area status. Increased visitor use at the Butte appears to have had no detrimental effect on the area.

There are two non-AMP grazing allotments within the natural area designation. These allotments involve few AUMs and have required no additional range improvements.

Lewis and Clark National Historic Trail

The Lewis and Clark National Historic Trail was established by Public Law 95-625 in late 1978. This trail follows the Missouri River through the ES area, including the Upper Missouri Wild and Scenic River. (See Interrelationships for additional information.) BLM has identified, where possible, the locations of Lewis and Clark campsites, and provides information regarding the Lewis and Clark journey to users of the wild and scenic river. Cooperation with

the National Park Service will continue as planning efforts for the Lewis and Clark National Historic Trail are intensified.

Nez Perce Trail

Chief Joseph and the Nez Perce Indians, in their famous retreat from the U.S. Army in 1877, passed through the central portion of the ES area. They crossed the Missouri River at Cow Island and traveled northward up Cow Creek to their last battle on the northern flank of the Bearpaw Mountains.

A study is currently underway to determine if the Nez Perce Trail should be included in the National Trails System as a National Historic Trail. The study was initiated by Congressional action; when completed, it will await action by Congress.

Participation in the previously described recreational activities and special management areas will continue to increase without implementation of the proposed action. Table 2-23 is a summary of the proposed increases in recreational use for selected activities present in the three Fish and Game regions encompassing the ES area.

odically during various periods or combinations of periods of spring, summer, fall, and winter use. There are approximately 125 of these 224 allotments which receive all of their use between the dates of March 1 through October 31 annually. The remaining 99 allotments receive most of their use between the dates of November 1 through February 28; however, some of these turn-in dates may precede November 1 by a month or six weeks. Weather conditions may also require the removal of livestock from these allotments during severe winters.

Forage production varies considerably between and within allotments, and from year to year. Range surveys show forage production to range from less than one acre per AUM to 20 or more acres per AUM. Unsuitable rangeland in these 318 allotments is about 101,918 acres (3 percent of the total AMP acres). Approximately 74,985 acres (74 percent) classified as unsuitable lie within the riverbreaks landform area; 21,509 acres (21 percent) are in the rolling plains landform area; and 5,424 acres (5 percent) are within the mountains landform area. The overall average for current licensed use is about 6.7 acres per AUM. The average production of all suitable rangelands is about 6.3 acres per AUM for current annual use. The variance in annual forage production can create considerable concentration of livestock in areas of the allotments where more palatable species and water developments are located. This creates poor livestock distribution in the good years as well as in the poor years of forage production. During drought years, this competition leads to reduced calf crops, lighter weaning weights, and increased stress on mother cows. Furthermore, plant vigor is reduced and seed production is almost nonexistent.

Livestock populations as of January 1, 1976, were estimated at approximately 161,000 head of beef cattle and 46,000 head of sheep for the ES area (Montana Department of Agriculture 1976). These figures represent a decrease in livestock populations from 1974 as shown in Table 2-30. With both cattle and sheep showing a decrease, the total animal units of the ES area have decreased by about 9 percent from 1974 to 1976 (one animal unit equals one cow, one cow and calf, or five sheep).

According to Montana Agricultural Statistics 1976, cattle numbers reached a recorded peak in 1974. Sheep populations have been decreasing since the 1930s and 1940s with a fairly steady trend since 1960. These trends apply to the entire state, and it is assumed they would be applicable to the ES area. Future trends of cattle populations are totally speculative; however, it appears that sheep populations will continue to decline due to limited predator control programs and increased production costs such as for labor and fencing.

Using the 1976 population estimates, the ***nine counties in which the ES area lies have*** a total of 170,200 animal units which would require 2,042,400 AUMs of forage and supplements annually. Present licensed use from BLM records show a total of 352,397 AUMs being used annually from public lands within the ES area. These AUMs represent about 17 percent of the total annual needs ***for the nine counties in which the ES area lies***. Although this 17 percent does not represent the only major source of livestock forage, it does represent a dependency on public lands for forage during critical periods of the grazing season for most operators.

Wilderness

The wilderness inventory, in accordance with Sec. 603(a) of the Federal Land Policy and Management Act (FLPMA), has not been completed on the public lands that would be impacted by the proposal. Prior to implementation of any actions, the areas will have to be inventoried and impacts on potential or existing wilderness areas assessed.

Until Congress acts on an area that has been designated for wilderness study, existing multiple-use activities, including grazing and supporting activities, will continue. New uses or expanded existing uses will be allowed if the impacts will not impair the suitability of the area for wilderness.

Under the guidance of FLPMA, the Bureau has developed wilderness review procedures to be used to inventory and select potential wilderness areas (U.S. Department of the Interior, Bureau of Land Management 1978). These procedures provide for protection and interim management of areas that may qualify for wilderness until a final determination can by made by Congress.

The BLM role in the wilderness review procedure is to recommend to the Secretary of the Interior, President, and Congress which public lands are suitable or nonsuitable for wilderness preservation. Congress makes the final decision on what areas will be included in the National Wilderness Preservation System.

REVISED DES PAGE 2-86 (continued)

Figure 2-17 identifies the steps involved in the wilderness review process. Public involvement is an integral part of these procedures.

One 'instant study area,' Square Butte Natural Area (designated prior to November 1, 1975), lies within the ES area. The proposed Arrow Creek AMP would be located within this natural area; however, no range improvement projects are proposed.

CHAPTER 3
ENVIRONMENTAL IMPACTS

vegetation manipulation projects, i.e., contour furrowing, sagebrush spraying, and plowing and seeding. Recovery rates for the temporarily removed acres would be closely related to precipitation with an average recovery time of two to three years for the ES area.

Contour furrowing is being proposed on 2,253 acres where fine-textured soils inhibit infiltration and runoff. About 1,200 acres are in the Upper Long Coulee Allotment, 280 acres in the Whiskey Ridge Allotment, 673 acres in the Blind Canyon Allotment, and 100 acres in the Buffington Range Allotment. Whitfield and Fly (1939), Dickson et al. (1940), and Barnes and Nelson (1945) reported that contour furrowing resulted in significant increases in forage production on deteriorated rangeland. Brown and Everson (1952) observed that contour furrows in Arizona retained their effectiveness even after 10 years.

On the other hand, Hubbard and Smoliak (1953) observed that furrows were of no value for holding or spreading water in Alberta, Canada, because they became filled with ice and snow. Nor did furrowing increase plant production on sandy soils in New Mexico (Valentine 1947).

The effects of contour furrowing were measured in Montana, Wyoming, Colorado, Utah, New Mexico, and Arizona (Branson et al. 1966). The most consistent beneficial response occurred on medium to fine-textured soils, and the Nuttall saltbush sites showed the most improvement in forage production.

A series of studies conducted in eastern Montana (White and Siddoway 1972) indicated that fallowing and contour furrowing effectively removed or reduced club moss, threadleaf sedge, and cactus. Reinvasion of the treated areas by more productive climax species such as western and thickspike wheatgrass usually occurred within a year. ***Range research on clubmoss along the highline area of northern Montana is also very supportive of mechanical treatment in rehabilitating clubmoss/blue grama sod-bound rangelands (Montana Agricultural Experiment Station, Bulletin 645, June 1970).***

The short term impact from furrowing would be the removal of 2,253 acres from production for at least one year following treatment. After native plant species became established, the long term impact would be at least a doubling of available forage on the treated site (Brown and Everson 1952, Dickson et al. 1940, Thatcher 1966).

Sagebrush spraying is proposed on 2,236 acres of relatively flat land with low erosion potential in the Hay Coulee Common Allotment. The spraying operation is proposed in conjunction with a four-pasture rest rotation grazing formula to reverse the deteriorating trend on the allotment and to get better forage production balance between pastures. This allotment also has two seasonal pastures. By spraying two of the six pastures, the short term impact would be the loss of grazing on these pastures for two or three years. The long term impact from sagebrush control would be at least a doubling of grass production (Sturges 1973), and would more evenly balance productivity among all pastures in the Hay Coulee Common Allotment.

After sagebrush control, the moisture normally withdrawn by sagebrush becomes available to other plants, or enters a ground water system and eventually augments streamflow. Sturges (1973) reported that grass production increased 20 percent on a sagebrush spray project in Wyoming, but the combined grass-forb production was similar to the untreated range since the decrease in forb production on sprayed plots was offset by increased grass production.

Eleven allotments are involved in the proposed plowing and seeding operation. The 10,850 acres proposed for treatment were selected because of the lack of desirable forage plants that could respond to intensive grazing management in a reasonable period of time. In order to maximize forage productivity and soil stability in the shortest timeframe possible, vegetation manipulations reducing the less desirable plant species while increasing desirable forage species is often necessary.

The short term impact of plowing and seeding would be the loss of livestock grazing on the treated land for at least one year. The long term impact would be a change in species composition toward more livestock forage species. Forage production could at least triple (Hurst 1976, Buckhouse and Gifford 1976, page 300), and vegetative density could increase by at least 40 percent. This is further supported by seedings conducted on Bankhead-Jones lands in the early forties within the ES area. After 35 years, these seeded acres are still rated at about 1.5 acres per AUM, whereas comparable unseeded acres in the ES area are rated at approximately 4.5 acres per AUM.

Projected and Potential Livestock Forage Productivity

Estimates of 15-year projected livestock forage production shown in Table 3-4 and Appendix 6 were made by first estimating the expected change in range condition by condition class and range dict mule deer impacts is not available, there could be significant local reductions.

White-tailed Deer

White-tailed deer would benefit slightly from the proposed action compared to a continuation of the present situation. However, the white-tailed deer is often dependent on riparian habitats. Because the existing and proposed grazing systems generally do not provide full protection of riparian areas, and because of the tendancy of livestock to use these areas heavily despite stocking reductions (Hormay 1976), many of these areas would improve only slightly and most, if not all, would remain far below their potential for white-tailed deer and other wildlife. Nevertheless, the whitetail will probably, at least in the short term (1 to 4 years), continue to expand its range gradually due to its exceptional adaptability to man's agricultural and other activities (Walcheck 1978).

Antelope

Antelope populations would probably remain about stable as a result of the proposed action (Figure 3-1). Improved forage conditions, and slightly reduced stocking rates, would have a favorable impact on antelope but as mentioned above, the contour furrowing, plowing and seeding, and sagebrush spraying could be detrimental locally. There have been observations that indicate that livestock can be detrimental to antelope through behavioral disturbance and utilization of preferred forage, particularly forbs (Pyrah 1978, personal communication). If, because of system failure or other reasons, the proposed action led to increased livestock use of antelope ranges, reductions in antelope populations would occur. The 551 miles of fence proposed would have a negative but probably not significant impact on antelope. ***A possible exception would be during occasional severe winters when antelope migrate across the plains east of Little Rockies, southward across the plains and down into the Missouri Breaks across the ice on Fort Peck Reservoir and on further southward. If proposed fences were in the path of this migration, several hundred or more antelope could be lost in a given winter. However, the fact that the proposed fences, although large in absolute miles or numbers of miles, are a very small percentage of the existing fences in the area and the fact that significant antelope die-off from fence entanglement has not been recorded in this area indicate that significant losses from the proposed fences are unlikely.***

Elk

Some of the allotments where elk occur, particularly in the Willow Creek Planning Unit, are grazed in the fall and winter and are already in excellent condition. Others are expected to experience forage increases from proposed rest rotation grazing systems. Several authors (Knowles 1975 and Mackie 1970) have noted that elk seldom occupy a pasture simultaneously with livestock. Nevertheless, the mobility and larger home ranges of elk compared to mule deer and antelope enable elk to seek out areas where forage conditions are optimum and take advantage of improved forage conditions that result from deferred and rest rotation grazing systems. However, as explained in Chapter 2, habitat condition is generally not a limiting factor for elk in the ES area. Thus, elk populations would not be expected to increase.

Bighorn Sheep

The current population of less than 10 bighorn sheep at the west end of the Charles M. Russell National Wildlife Refuge (Map 2-9) does not extend out of the Wildlife Refuge (Eichhorn 1978, personal communication). If the population were to expand into adjacent allotments, it could be impacted by the proposed action. Bighorn sheep and cattle compete heavily because of similar food habitats. Although they would benefit somewhat from increased available forage, these bighorns would not be apt to expand significantly under the proposed grazing program because of the apparent difficulty of producing bighorn sheep and cattle on the same land. There are no AMPs near the bighorn sheep in the Little Rocky Mountains.

Wild Horses

Although no forage has been specifically allocated to the small wild or semi-wild horse population delineated on Map 2-9, they would receive some benefit from improved vegetation conditions if the grazing plans for the allotments in that area were successful. The 15 miles of fence proposed for the Ervin Ridge and Black Butte Allotments (#'s 6212 and 6211) would restrict the movement of the horses. However, the number of horses in this band (about 30) is not expected to be affected.

Mountain Lions and Furbearers

The impact on mountain lions and furbearers such as coyotes, weasels, and skunks would vary depending on the response of small mammals to changes in vegetation conditions (see below). Any changes in the populations of these predators would be small. Beavers and muskrats would generally be unaffected by the proposed action although improved watershed conditions would marginally improve habitat conditions for these species, ing systems in the vicinity of Malta north of the ES area. Because most of the ES area, particularly the riverbreaks portion where 206 of the reservoirs would be located, is not as productive for waterfowl as Gjersing's study area and because only 83 of the AMPs would be under rest rotation grazing systems (which Gjersing found to benefit waterfowl production due to increased residual nesting cover), production on the ES area would be about two birds per surface acre. Assuming an average reservoir size of 3 acres, about 2,600 ducks would be produced annually by the reservoirs.

Improvement of vegetation conditions around existing stock reservoirs should improve the watershed, reduce the amount of surface runoff and soil erosion, and correspondingly reduce the amount of siltation and turbidity within the reservoir itself. A reduction in turdibity and subsequent development of aquatic plant communities and invertebrate populations would benefit nesting ducks primarily during the brood rearing stage.

If islands are constructed on the larger reservoirs (3 acres or more), some geese would also be produced. It has been demonstrated that after four years, about 57 percent of the waterfowl islands constructed in this area (excluding the timbered breaks) are used by nesting geese (Eng, Jones, and Gjersing 1978, in press). Shorebirds would also benefit from the new reservoirs. Rundquist (1973) observed the use of reservoirs by 28 species of shorebirds (several of which were nesting) along the northern edge of the ES area.

Raptors and Other Non-Game Birds

ES areawide populations of raptors and other non-game birds would not likely be impacted significantly by the proposed action. Any raptor response will be primarily due to population changes of small mammals and other prey species (see section on small mammals).

Local changes in vegetation would benefit some non-game bird populations and reduce others. For example, land treatments that involve sagebrush removal would reduce Brewer's sparrows and vesper sparrows (Best 1972), while horned larks, which prefer open habitats, would probably increase.

Reptiles and Amphibians

No significant impacts on reptiles and amphibians are anticipated. Amphibians and aquatic reptiles such as the snapping turtle would benefit from the construction of 436 reservoirs. To the extent that the proposed action improved watershed conditions, siltation and resulting problems such as suffocation of amphibian eggs would be reduced.

Fish

It is not anticipated that the proposed action would significantly change conditions for fish. Impacts that are presently occurring would continue. Platts (1977) says, "Rest rotation grazing without special protective measures for the stream and streambanks will not maintain or restore a healthy productive riparian-aquatic zone." The proposed action does not include special protective measures for riparian habitat.

Some of the reservoirs constructed would undoubtedly be suitable for the stocking of fish. However, many reservoirs already on public lands could be stocked (Elser 1977). Thus, these 436 new reservoirs are not likely to affect sport fish populations within the ES area significantly since there is already a surplus of reservoirs available for stocking.

Improved vegetation conditions in the watersheds that include fisheries reservoirs would benefit fish populations in several ways. The water would be clearer, allowing for better light penetration and food production. The reduced siltation would increase the life of the reservoirs which in some areas, notably south Valley County, can be as short as 15 years (Willow Creek Planning Unit, Unit Resource Analysis).

Invertebrates

Although the relationship between grasshoppers and livestock grazing is not completely understood, it appears that grasshoppers prefer areas with low growing weeds and grasses and relatively sparse vegetation cover (Nerney 1957 and Anderson 1964). Thus, grazing influences grasshopper distribution. Pastures grazed heavily during the rest rotation cycle may attract grasshoppers which could then put excessive demands on the vegetation. However, entomologists believe that although such conditions attract grasshoppers, they do not themselves cause increases in grasshoppers, so there is at present no basis for saying that intensive grazing directly influences grasshopper populations over a large area such as the ES area.

Threatened or Endangered Species

No impact on the northern Rocky Mountain wolf is anticipated from the proposed action because (1) it is extremely unlikely that this species occurs in the ES area, and (2) as with other predators, the better hunting opportunities could result within the Refuge and on adjacent public lands.

Square Butte Natural Area

One proposed AMP falls within the Square Butte Natural Area designation (Arrow Creek - 9783). This AMP has a grazing season from 9/23-5/30, which is past the summer recreation use season. No improvements are proposed and no adverse impacts to recreation are anticipated.

Lewis and Clark National Historic Trail

No significant impacts resulting from the proposed action would occur to values of the Lewis and Clark National Historic Trail. Future cooperative efforts with the National Park Service will ensure that management by BLM of lands adjacent to the trail corridor is consistent with the mandates of the National Trail Systems Act.

Nez Perce Trail

Because this trail is presently only a historic location and not a developed trail, no grazing conflicts with recreation opportunities have been identified.

Summary of Impacts to Recreation

Implementation of the proposed action would have a slightly beneficial impact on hunting opportunities by improving wildlife habitat and potentially increasing wildlife numbers. Changes in the quantity or quality of opportunities for fishing, sightseeing, off-road vehicle use, floatboating, sport shooting, and other recreational activities would be minor. The proposed action would improve the quality of recreational opportunities along the Upper Missouri Wild and Scenic River by more effectively managing livestock grazing within the river corridor. No other special management areas for recreation would be significantly affected by the proposed action.

ECONOMIC AND SOCIAL CONDITIONS

Economic Conditions

This section analyzes those sectors of the economy that would be affected by the proposed action, including livestock, contract construction, government, and hunting recreation. Except for hunting (where the data had limitations) these sectors were analyzed using the computerized BLM DYRAM (Dynamic Regional Analysis Model) which uses historic socio-economic data to generate anticipated changes in earnings and employment. (Appendix 9 presents a schematic of the DYRAM process.) Those economic sectors not affected by grazing management were not further analyzed beyond the basic data presentation in Chapter 2, Economic and Social Conditions.

Income

Range-related income in the ES area would drop following the implementation of the proposed action by approximately $39,000 annually in 1980 dollars. That figure, measured against a l980 base of $94 million in personal income from livestock operations in the nine-county area, and spread among almost 400 operators who are to some extent dependent on BLM AUMs, is insignificant to the nine county economy. However, some operators would experience economic difficulties during the years 1980-1985, the period when the cutback in income would occur. The annual loss of $39,000 in income results from a reduction of approximately 3,000 AUMs across the ES area. The loss would not be spread evenly among all operators (in fact, 27 allotments would receive an increase), and some operators would experience a substantial decrease. While ***68*** of the 318 allotments have a reduction in BLM AUMs, only ***9*** allotments (***11*** operators) would have a reduction of 25 percent or greater. Table 3-8 provides data on those ***9*** allotments. Total operator AUM needs as shown in the table are a general indicator of an operator's annual need for AUMs (both BLM and private) based on herd size. In many instances, this figure does not include the total ranch operation, i.e., an operator may farm a substantial portion of his private acreage in addition to raising cattle. Thus, the use of total operator AUM needs as a measure of

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dependency on BLM AUMs presents a "worst case" analysis of adverse impacts to an individual operator.

Assuming ***that approximately $10.04 of business activity is generated*** per AUM in the nine county ES area, it appears that the value of livestock production foregone by the ***11*** operators included in Table 3-8 as a result of the reduction in BLM AUMs would total approximately ***$17,359*** ($10.04 x ***1,729*** AUMs). Using a county specific market value per AUM (see Table 2-24), it is possible to determine the dollar value of livestock production foregone by each operator at implementation. The relationship of the following dollar losses to total ranch revenues has not been determined because no data are available on total individual ranch income. Operators for allotments 0095 and 6214 (operator A) (see Table 3-8) would experience an annual loss of livestock income in excess of $3,000, but less than $4,000. Operators on allotments 0009, 0036, 5663, and 6217 (operators A and B) would experience an annual loss of

TABLE 3-8
Allotments with a 25% or Greater Reduction in BLM AUMs

Allotment Number	Allotment Name[1]	Existing Licensed Use (AUMs)	Licensed Proposed Use		Reduction In AMP Implementation (AUMs)	Licensed AUMS After 15 Years (AUMs)	Total Operator AUM Needs[2]	BLM AUM Reduction As % of Estimated Total Operator Needs	
			AMP Implementation (AUMs)	After 15 Years (AUMs)				AMP Implementation (AUMs)	After 15 Years (AUMs)
0009	Whiskey Ridge	407	300	380	-107	- 27	1,268	- 8%	- 2%
0036	North Moccasin	182	72	113	-110	- 69	780	-14%	- 9%
0095	Reed Coulee	544	262	510	-282	- 34	1,548	-18%	- 2%
2146	Casper Coulee	336	242	278	- 94	- 58	1,988	- 5%	- 3%
5663	First Coulee	768	555	747	-213	- 21	1,680	-13%	- 1%
6214	Little Bullwhacker								
	Operator A	1,177	861	888	-316	-289	2,340	-14%	-12%
	Operator B	380	307	312	- 73	- 68	950	- 8%	- 7%
6217	Sneath Common								
	Operator A	355	123	129	-232	-226	600	-39%	-38%
	Operator B	344	160	172	-184	-172	550	-33%	-31%
9755	Bird Coulee	192	119	119	- 73	- 73	192	-38%	-38%
9761	Arrow Creek Bench	153	108	108	- 45	- 45	1,800	- 3%	- 3%

[1] Where allotment has more than one operator, they are listed separately.

[2] Total operator AUM needs are a general indicator of an operator's annual AUM requirements based on current herd size, i.e., an operator with 150 cattle would have a need on a twelve month basis for 1,800 AUMs.

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between $1,000 and $3,000. Operators for allotments 2146, 6214 (operator B), 9755, and 9761 would all lose less than $1,000 per year. Assuming that AMP objectives are met and additional AUMs become available within 15 years, only one operator would experience a long-term loss of over $3,000 per year, two operators would experience a loss of between $1,000 and $3,000, and ***eight*** operators would have a loss of less than $1,000.

These loss values are an estimate of the income lost as a result of the reduction in BLM AUMs. The basic assumptions in this analysis are: (1) ***the amount of business activity generated*** is accurately reflected by a 6-year average of the quotient of livestock receipts by county and livestock numbers (adjusted appropriately by type of animal), and (2) losses are 'potential' in the same sense that if an operator's AUM level is reduced, he will lose the opportunity to realize income from livestock production on that parcel of land.

Additional analysis of the ***9*** allotments and ***11*** operators with a 25 percent or greater reduction based on BLM grazing records, contacts with several of the affected operators, the professional judgment of BLM personnel familiar with the allotments, and the dependency relationship shown in Table 3-8 indicate that eight operators would most likely be able to continue their livestock operations with minimal disruptions. Several factors temper the impact of the BLM AUM reductions for these operators. Many operators have not been actively using all AUMs currently available through BLM license or lease, and therefore the proposed reductions are consistent with existing operator herd sizes. In other cases, the reduction in AUMs on public lands is not significant in terms of an individual's total ranch operation. However, ***three*** operators may experience difficulty in maintaining an economically viable livestock operation during initial phases of implementation of the proposed action. These ***three*** operators would be faced with the choices of significantly reducing herd size, buying or leasing replacement AUMs in the form of land or supplemental feed, or stopping livestock operations and finding alternate means of employment.

The expected 22,004 new AUMs of livestock forage eventually generated through management of the allotments would, however, be adding additional yearly income of $284,000 adjusted to 1980 dollars after the AMPs become fully operational. This sum is still small, but would add 0.3 percent to livestock personal income in the ES area counties annually. This stimulus to the economy would add $45,000 in secondary effects to total annual personal income in the ES area. Total measurable economic growth from increased livestock income would, in other words, amount to an annual increase of 0.09 percent in the nine counties. The improved range condition resulting from allotment management would increase the amount of forage available, and improve livestock health and condition. An additional unquantifiable amount of income would be realized through higher fertility, lessened mortality, and higher calf weights.

The construction expenditures created by government-sponsored range improvements would, however, generate a more significant impact on income. The construction of improvements would inject additional personal income into the nine-county area, amounting to $1,532,000 or a temporary increase of 14.3 percent of 1980 construction income. Because the construction of range improvements is essentially a one-time expenditure (although spread over four years) and much of the new income would be spent outside the nine county area, the secondary effect on the economy of the ES area would be negligible, amounting to only about $.0l for each dollar of construction income.

The present value of the investment in improvements has been measured against the present value of the annual income increase, computed in 1980 dollars to the year 2000. When amortized out to 2000, using a seven percent interest rate, the investment outlay would equal $3.07 million, while the total increase in income *based on AUMs only*, would amount to $3.01 million. Thus, using only the one measure of benefit, there would be about one dollar return for each dollar invested. The application of range improvements to improve the rangelands in the ES area certainly has better investment return than this figure (which was the only portion that could be accurately quantified), because the management program would also improve herd health, resulting in lower mortality, higher fertility, and increased calf weights for marketing; improve watershed; and increase wildlife numbers.

Federal government-related income would also increase. The 30 new employees that would be required to implement the AMPs are expected to continue to be employed into the future to help carry the increased administrative load this management will require. In l980 dollars, this would be an annual personal income for the ES area of $357,000 (employee salaries), or an increase over present levels of 2.3 percent. The total direct and indirect effect on the economy would be a change in personal income of $431,000 annually, or an increase of 0.01 percent to the total nine county economy.

Hunter/fisher days would probably not be greatly affected by AMP implementation. New forage would be allocated to wildlife, but the increase in

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(replaces DES pages 3-39 through 3-44)

Wilderness

A 5,000 acre roadless area inventory and subsequent identification of Wilderness Study Areas has not been completed. Without this information, an identification of site-specific impacts to wilderness values cannot be made. Prior to implementation of any actions, the area would be inventoried and impacts on potential or existing wilderness areas would be assessed.

The steps involved in the wilderness inventory process include an initial inventory to identify those areas that clearly and obviously do not meet the criteria for Wilderness Study Areas, and those areas that may possibly meet the criteria and will receive more intensive inventory. A decision on this initial inventory for the Missouri Breaks ES area was made in mid-1979. Of the nearly 100 initial inventory units in the ES area, approximately 25% were dropped from further consideration because they clearly and obviously did not meet the necessary criteria. After the intensive inventory is complete on the remaining inventory units, Wilderness Study Areas are expected to be designated by September 1980. Public involvement is an integral part of the wilderness inventory process.

The Federal Land Policy and Management Act provides for the continuation of existing grazing uses in the same manner and degree in which they were conducted on October 21, 1976, but these must cause no unnecessary or undue degradation of the lands and their resources, and they must afford environmental protection. Expansion or curtailment of grazing use and changes in numbers, periods of use, and kind of livestock may be allowed so long as wilderness suitability is not impaired. This would include implementation of grazing systems and changes in grazing systems.

Use and maintenance of existing range improvements would be allowed so long as this would not cause undue or unnecessary degradation of wilderness values. New range improvements needed to support and facilitate grazing use and management may be installed and maintained so long as the activities and structures would not impair the area's wilderness suitability. Some range improvements such as fences, cattleguards, well or spring developments, trails, and corrals would likely be allowed in Wilderness Study Areas under careful controls to prevent changes in an area's wilderness suitability. Range improvements which make substantial changes on the surface such as vegetation manipulation (plowing and seeding, contour furrowing, sagebrush control) or large reservoirs would not be allowed if they jeopardized an area's suitability for wilderness status.

Based on the foregoing discussion, the identification of Wilderness Study Areas in September of 1980 may have a significant bearing on implementation of the proposed AMPs. The guiding principle when implementation begins is that no action would be allowed which would impair an area's suitability for wilderness designation.

NOTE: All text regarding wilderness on page 3-39 through page 3-43 should be deleted and replaced with the preceding discussion.

Summary of Impacts to Land Use

Implementation of the proposed action would increase stocking levels on 27 AMP allotments, decrease levels on 69 AMP allotments, and cause no change on 222 AMP allotments. The overall initial reduction from existing licensed use would be one percent. Within 15 years, increased forage production would result in a seven percent increase from existing licensed livestock use. Sixty-six AMP allotments would be converted from yearlong grazing to periodic grazing seasons with grazing systems. Nineteen AMP allotments would remain under yearlong operation but would implement deferred rest or rest rotation grazing systems. Forty-eight AMP allotments would have a reduction in livestock use from 3/1 to 6/30 with 28 AMP allotments having an increase in use during that time period. Although some adjustments would be necessary for individual livestock operators, these effects are not considered significant in the long term.

A 5,000 acre roadless area inventory and subsequent identification of wilderness study areas has not been completed. Without this information an identification of site-specific impacts to wilderness values cannot be made. Prior to implementation of any actions which might affect wilderness values, the ES area would be inventoried and impacts on wilderness study areas would be assessed.

CHAPTER 4

MITIGATING MEASURES

where waterfowl islands could be economically constructed.

8. Islands and/or waterfowl rafts would be constructed on new reservoirs and existing reservoirs (where possible) on which the BLM resource area wildlife biologist determines such structures would lead to greater reproductive success for ducks or geese. While water developments associated with grazing systems generally benefit waterfowl, the removal of residual vegetation by grazing and the trampling of nests often reduce those benefits. This measure would allow waterfowl to better take advantage of the benefits of reservoir construction.

Prehistoric and Historic Features

9. Prehistoric and historic sites would be avoided in most cases because of four factors: (1) the project areas probably have low site densities (less than two sites per section), (2) most projects would disturb relatively small acreages (no more than three acres), (3) cultural site sizes are also relatively small, averaging about one acre, and (4) the range improvement projects normally could be relocated. Exceptions to these cases are vegetation manipulation projects where large areas would be disturbed and relocation may not be possible.

10. Sites which cannot be avoided would be treated in the following way. If the site contained significant remains, it would be assumed that the site would be eligible for inclusion on the National Register of Historic Places. This would require consultation with the State Historic Preservation Officer to determine eligibility for the National Register, and would require comment from the President's Advisory Council on Historic Preservation when the effect of the project on the site is determined. If an adverse effect on the site is determined, it may still be recommended that the site be avoided and preserved. Nonavoidance would necesitate information recovery, probably by excavation, at the site. A finding of no adverse effect may still be made, contingent upon complete excavation or other information recovery techniques (Figure 4-5). If "no adverse effect" cannot be agreed upon, a memorandum of understanding would be written with the Advisory Council, to establish an acceptable level of mitigation. These mitigating measures should bring impacts to cultural features within an acceptable level.

11. When no sites are found during inventory, but prehistoric or historic material is encountered during construction, operations would cease while the BLM evaluates the material. If the material represents a significant site, it would be salvaged. Normally, an emergency excavation would occur to recover as much cultural material as reasonably possible.

Visual Resources

12. Existing vegetation, draws, and other natural screening would be used to reduce the visual impacts of range improvement projects. Such screening would reduce the contrast between the project and the surrounding landscape significantly.

13. All borrow material for construction of new dams would be taken from below the high water line. When the reservoir is full, this measure would eliminate the unnatural appearing borrow site and help reduce the overall visual impact of the project.

Recreation

14. Livestock grazing in specified high-use recreation sites along the Upper Missouri Wild and Scenic River would be controlled through fencing and/or selective grazing. An intensive inventory of these sites ***will be completed within one year after release of the final environmental statement. No proposed AMPs will be implemented along the riverway until this inventory information has been evaluated by the affected BLM Area Manager and the inventory data used to determine the final AMP content***. This action would eliminate many recreationist-livestock conflicts.

Wilderness

15. Only those range improvement projects or range management practices ***which would not jeopardize wilderness suitability*** would be considered for implementation in a wilderness study area. This would insure retention of wilderness values in wilderness study areas.

16. Construction of new roads requiring scraping, blading, or clearing of vegetation would not be allowed in a wilderness study area. A "road" would disqualify that area for possible "wilderness" designation.

STUDIES AND MONITORING PROGRAMS

1. Erosion condition would be monitored. Maintenance of lands presently in stable and slight erosion condition (1,657,327 acres or 55 percent of the AMP acreage), and progress of improvement in erosion condition within the remaining acreage would be measured. Measurement of improvement in areas presently in critical to severe erosion condition (56,767 acres) is particularly important. Depending upon demonstrated results, AMPs would be revised to implement additional grazing management and range improvements. Consideration of individual soil capabilities and limitations as determined from updated soil surveys would be essential.

2. Those allotments grazed at the same time each year would be closely monitored to assure that the range condition is not deteriorating.

3. On the 95 allotments where seasonal grazing is prescribed, the range condition and trend will require diligent monitoring. If any of the seasonal allotments are found to be deteriorating, an intensive management system would need to be implemented immediately. Further, any increase or decrease in AUMs from the current licensed use must be accompanied with an EAR with current condition and trend data.

4. Riparian habitats would be inventoried and their importance to wildlife evaluated in each resource area within two years following issuance of the document in final form. Through the MFP process the more important of such habitats would be identified and recommendations made. AMP revisions would then be made to protect those areas from grazing in accordance with the MFP. This protection would significantly benefit many wildlife species, particularly non-game birds and white-tailed deer, that depend on riparian habitats. According to Hormay (1976), "Vegetation in certain areas such as meadows and drainageways are invariably closely utilized under any stocking rate or system of grazing. Such use may be detrimental to wildlife, aesthetic or recreational, or other values. Where this is the case, about the only way to preserve values is to fence the area off from grazing; reducing livestock or adjusting the grazing season will not solve such a problem."

5. Where significant prehistoric or historic sites are known to be impacted by livestock trampling, those sites would be monitored on at least an annual basis to measure the amount of destruction occurring. If sites are being destroyed, measures (such as fencing) would be implemented to halt the impact.

6. Construction of range improvement projects allowed within a wilderness study area should be monitored to insure compliance with the previously described mitigating measures and give on-site assistance in insuring the least amount of adverse impact to potential wilderness values in the area.

CHAPTER 5
RESIDUAL ADVERSE IMPACTS

RECREATION

In riparian areas and along shoreline areas where livestock grazing is allowed, impacts to hunting and fishing opportunities associated with adverse impacts to fish and wildlife habitat would continue.

Conflicts between sport shooting enthusiasts and livestock would continue on the public lands within grazing allotments, presenting shooting hazards to livestock.

Any fencing done along the Upper Missouri Wild and Scenic River to reduce recreationist/livestock conflicts would present visual intrusions adversely impacting the visual resource, reducing scenic values.

Vegetation manipulation practices would have residual adverse impacts on scenic values by creating unnatural contrasts on the landscape.

Any range improvements placed on the public lands where they can be viewed by recreationists would produce visual intrusions adversely impacting the visual resource, reducing scenic values.

In areas along the Upper Missouri Wild and Scenic River where livestock grazing is allowed, potential livestock/recreationist conflicts would exist or continue.

Fence construction would create residual adverse impacts to cross-country travel by off-road vehicles and snowmobiles by producing hazards and barriers to movement.

ECONOMIC AND SOCIAL CONDITIONS

Impacts were determined to be so small that no mitigating measures were suggested. Many of the impacts would be beneficial. However, at least two areas show slight adverse impacts that would not be mitigated.

First, licensed livestock grazing levels would be reduced slightly following implementation of the proposed action. The personal income loss of $39,000 would not be spread evenly among the nearly 400 operators, and could cause economic hardship to the operators of as many as 10 AMPs (3.1 percent). However, the full implementation of AMPs would increase licensed use to above present levels.

Second, socio-cultural attitudes show that imposition of federal government regulations is met with some resentment. Although government interference would be somewhat mitigated by the proposed action's effects not being outside the prevailing local attitudes, some resentment of the government's imposed management regulation would probably be present.

LAND OWNERSHIP AND USE

No significant residual adverse impacts would occur to land ownership.

Livestock Grazing

Net reduction of about 3,000 AUMs would be imposed upon implementation of the proposal. Sixty-nine allotments are scheduled for AUM cuts, while 27 allotments would receive increases.

Wilderness

Residual adverse impacts to wilderness values would result from the implementation of any proposed range improvement project found acceptable for placement in a wilderness study area. The magnitude and significance of these impacts is unknown because a wilderness inventory has not been completed on the ES area. Intensities of the residual impacts in a specific wilderness study area would depend on the characteristics of the site. Determinations must be done on a case-by-case basis to avoid problems with over-generalizations.

NOTE: Table 5-2 should be deleted.

CHAPTER 8
ALTERNATIVES TO THE PROPOSED ACTION

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significantly. Biological quality, reflected by presently unquantified fecal coliform bacteria levels, would decrease slightly, especially in drainages where livestock presently congregate.

Vegetation

There would be no short-term impacts as there is no term; range condition would continue to improve on the 17 AMP allotments indicating an upward trend. Those 22 allotments presently determined to be static could potentially either improve or decline. The following acreage by condition class includes those AMPs that have gone through at least one grazing cycle:

Range Condition Class

Trend	*Excellent*	*Good*	*Fair*	*Poor*	*Total*
Upward	70,479	159,652	43,860	1,195	825,558
Static	20,286	165,476	80,417	3,035	841,056

Non-AMP allotments that are presently in poor to fair condition would remain so, and those allotments that are declining in range condition would continue to deteriorate without a change in grazing management. Those allotments that are presently in good to excellent condition or are improving would remain the same or continue to improve.

Adverse impacts on vegetation in the non-AMP areas which are slated for AMP implementation under the proposed action would include a decrease in production, lowered plant vigor, decreased ground cover, and a change in composition to less desirable species. The more palatable plant species and livestock concentration areas would continue to receive heavy, continuous grazing pressure and would be the most severely impacted. Less desirable plant species would increase within most of the non-AMP allotments.

Overall, long-term range condition would generally be expected to decline in those allotments not already under a grazing system and which are not presently in an upward or stable trend. Range condition problems will intensify through time if the present grazing management program is continued. This alternative is one of the least beneficial of the options available for vegetation as it would not substantially change the identified problem areas (see Appendix 10). ***Ranges in a downward trend would continue to deteriorate.*** This deterioration process would continue primarily on the selectively grazed sites, such as watering areas, coulee bottoms, and other readily accessible sites.

Because no threatened or endangered plant species are known to exist within the ES area, the possibility of impacting any officially recognized species by any of the alternatives is remote.

Wildlife

Most wildlife populations would suffer slight declines under this alternative. As explained in the introduction to Chapter 3, it is anticipated that there would be a decrease of approximately five percent in available forage if no changes in the current grazing system are implemented. This general deterioration of range conditions would negatively impact most wildlife populations; however, most of these declines would be undetectable with currently available wildlife census techniques. No impact on the endangered black-footed ferret or peregrine falcon would be anticipated under this alternative. The wild or semi-wild horses in southern Blaine County would not be affected.

Prehistoric and Historic Features

Under this alternative, livestock trampling of prehistoric and historic features would continue occurring. No new range improvements would be constructed, so impacts would not increase. Chapter 2, Prehistoric and Historic Features, noted that 60 percent of recorded sites are in a deteriorating condition. Although studied have not quantified the numbers involved, livestock trampling and resultant erosion were factors listed in the site deterioration. This type of impact would continue to affect some prehistoric and historic sites under this alternative, particularly over the long term.

In most respects, conditions under this alternative would be similar to those described in Chapter 2. Sixty percent of the sites, which probably number between 3,400 and 5,000, would continue in a deteriorating trend.

Visual Resources

Implementation of this alternative would require placement of no new range improvement projects on the range, thus no additional adverse impacts to the visual resource would result. Areas currently

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being adversely impacted due to livestock management practices would continue to deteriorate, decreasing the visual quality in these areas. Livestock would continue to concentrate in riparian areas and along shorelines regardless of the grazing management system, unless they were fenced out. In the short term, this alternative would be less detrimental to the visual resource then the proposed action because no new visual contrasts in form, line, color, or texture would be created through con-

Wilderness

The major adverse impacts to wilderness values associated with the continuation of the present grazing management program alternative would include visual impacts and degradation of wilderness integrity created by the presence of range improvements and livestock management activities. However, this alternative would be more desirable from a wilderness standpoint than would the proposed action, the reduction alternative, or the forage maximization alternative, which would all require additional range improvement projects.

ALTERNATIVE B: ELIMINATION OF LIVESTOCK GRAZING ON PUBLIC LANDS

Description

This alternative assumes elimination of domestic livestock grazing on approximately 2,169,000 acres of public lands including 350,452 AUMs. No new AMPs would be implemented, and all existing AMPs would be terminated. Because private and public lands are mixed throughout large portions of the ES area (only 26 percent of the ES area is public land), extensive fencing would be necessary to control livestock trespass on public lands. On private land in Montana, livestock must be fenced "out" in order to sustain a trespass charge. But, because the federal government is the landowner in this case, BLM could not be legally compelled to fence. However, as a practical matter, an extensive amount of fencing by BLM would be necessary to prevent livestock use of public lands. The amount of fencing necessary has not been quantified; however, it can be assumed that many thousands of miles of fence would be needed. The large magnitude of a public land fencing effort can be roughly envisioned by review of Map 2-22, Land Ownership. A major BLM workload would become the monitoring of public land use. No range improvements would be maintained or constructed unless necessary for other resource programs such as wildlife or watershed.

The elimination of grazing alternative was analyzed in order to portray the social and environmental consequences of complete removal of livestock from public lands.

Soils

Elimination of livestock from public lands would eliminate degradation of drainage bottoms and areas around water sources from compaction effects, accelerated erosion, and sedimentation increases due to livestock grazing.

Incised trails in most areas where slopes do not exceed 20 percent would improve moderately.

Without livestock grazing, plants would initially respond with increased vigor, with resulting increased ground cover and litter formation, thus reducing bare ground and erosion potential. However, grass species would stagnate eventually at less than full growth potential without the growth stimulation offered by grazing.

Watershed consequences of stagnated vegetation growth are not well documented. Elimination of grazing, while better for watershed values than continuation of the present grazing program, would not have the vegetation stimulation effects of alternatives involving reduced livestock use, or proposed rest rotations and grazing deferral.

Rapid short-term responses would be observed in major drainages where present erosion condition is classified as critical to severe. Long-term improvement in erosion condition class acreages, and in sedimentation reductions, is estimated at an average of 10 percent, with the most significant gains occurring in major drainages where livestock presently tend to congregate. Lands in critical to severe erosion condition should decrease 27,849 acres from the present estimate of 278,487 acres. Sedimentation should be reduced 265,326 tons, from the present 2,653,259 tons (see Table 8-1). The most significant reduction in sedimentation would occur in the Arrow Creek drainage where soils with high clay content have very severe water erosion hazard.

Estimates of 10 percent average watershed improvement over 15 years are based upon expected increases in litter and vegetation cover, and decreases in percent bare ground, as correlated with ES area study plot findings of Willard and Herman 1977. These changes parallel those expected for range condition shifts, with added watershed values derived from litter accumulation (see Vegetation section, Chapter 8).

Silty range sites which have blue grama and clubmoss as dominant species--less than 20 percent of the total AMP area --would not be expected to change appreciably with removal of livestock. Clubmoss vegetation growth has extremely high percent ground cover, nearly eliminating surface soil movement. These areas are in stable to slight erosion condition classes, and would remain so in the long term.

levels for most species slightly or moderately above current levels, but considerably below the levels possible when grazing is designed to meet wildlife needs (see Alternative C - Reduced Levels of Livestock Use).

The extensive fencing that this alternative would require would be detrimental to big game movements. Although data are not available, estimates for other areas (U.S. Department of the Interior, Bureau of Land Management 1977b and 1977c) indicate that probably a hundred or more deer and/or antelope would be killed annually through entanglements with fences.

Because of the ***comparatively*** well-blocked federal ownership in the vicinity of Ervin Ridge in southern Blaine County, there would be ***relatively*** little fencing in that area. Thus, the wild or semi-wild horses, if permitted to roam, would increase several fold due to the increased available forage.

Mule deer would increase slightly under this alternative due to the elimination of grazing in important winter and year-round habitat. White-tailed deer would experience a larger increase than mule deer because of their greater dependence on riparian areas and the very large improvement in riparian habitat anticipated under this alternative. The carrying capacity for elk would increase due to increased available forage, particularly grasses. However, the ability of elk to respond to this change would depend upon hunting pressure as influenced by landowner attitudes toward increased elk populations. Antelope populations would show a slight increase due to reduced competition with livestock; however, the increase would be minimized by the impact of greatly increased fencing and successional changes that would reduce the availability of forbs which are an important part of their diet. ***Because of the substantial incompatibility of bighorn sheep with livestock operations (see page 2-36), elimination of grazing would allow a substantial expansion of the currently restricted bighorn population should they expand from their current range within the Charles M. Russell Wildlife Refuge to the surrounding BLM land.***

Sharp-tailed grouse would show moderate improvements due mainly to greatly improved residual cover for nesting. Sage grouse would show some improvement, but less than sharp-tailed grouse because they are more dependent upon sagebrush (which would decrease slightly because of succession toward grass) and less dependent on residual grass cover. Waterfowl would benefit considerably from increased residual vegetation for nesting cover (Kirsch 1969). There would be some waterfowl losses as water sources were lost through lack of maintenance, but in balance this alternative would benefit waterfowl even more than the proposed action.

Since the amount of forage available for livestock would no longer be an important concern on public lands, attempts to control prairie dogs (the primary prey species of the endangered black-footed ferret) would be reduced. However, since increased average grass height would reduce opportunities for prairie dog expansion (U.S. Department of Agriculture, Forest Service 1978), the net impact of this alternative on the ferret would be only slightly beneficial. Generally improved conditions for small non-game birds, particularly in riparian areas, would result in a slight improvement of overall conditions for the endangered peregrine falcon.

Prehistoric and Historic Features

All impacts to both historic and prehistoric features directly relating to grazing management would be eliminated, both in the short and long term. No impacts would result from construction or implementation of range improvements except from additional fencing. Ground disturbance from fencing is minimal except where grading is necessary to construct fencelines. Any impacts caused by cattle directly--such as trampling--would cease. Cultural resources would probably remain in better condition than they would under either the proposed action or continuation of the present program.

Some natural degradation of prehistoric and historic resources would continue to occur. The principal causes of these impacts would be wind and water erosion.

Visual Resources

Due to the scattered ownership of most of the public lands in the ES area, implementation of this alternative would require construction of numerous new fences to keep livestock from trespassing on public lands. The fenceline contrasts between ungrazed BLM land and grazed private lands would be detrimental to the visual quality of the area.

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Because the proposed action would require less fence construction, even though additional range improvement projects were required, it would be more desirable from a scenic standpoint than a no grazing situation, primarily because fenceline contrasts would be, in most cases, more apparent to the viewer than would individual range improvement projects.

Recreation

This alternative would be very favorable from a recreational standpoint because all adverse impacts directly related to livestock grazing would be scribed burning would be conducted within conifer types with some sagebrush burning when it would not conflict with identified wildlife needs. All three vegetation manipulations are proposed in areas where the greatest amount of livestock forage would be realized through the removal or thinning of less palatable species.

The soil types for those sites where treatments are prescribed are capable of supporting greater amounts of livestock forage than is presently being produced. Rainfall within the ES area averages between 10-14 inches per year, which is adequate for the establishment and maintenance of higher producing forage species.

Based on previous range rehabilitation work conducted by the BLM and others within or near the ES area, there is a high probability of success for the proposed treatments. For example, recent studies conducted by the Agricultural Research Service (now Science and Education Administration) in southeast Montana (Wight et al. 1978) found that over an eight year period, contour furrowing on a panspot range site increased average annual herbage production 165 percent, while increasing plant available soil water 107 percent. Thickspike and western wheatgrass accounted for most of the increased yields. The average annual rainfall is about 12 inches where the study was conducted. ***Range research on clubmoss along the highline area of northern Montana is also very supportive of mechanical treatment in rehabilitating clubmoss/blue grama sod-bound rangelands (Montana Agricultural Experiment Station, Bulletin 745, June 1970).***

Wildlife

Of all the alternatives, this one would be the least favorable for wildlife. Although the data are not entirely conclusive, studies on and near the ES area indicate that mechanical and chemical manipulations of vegetation are detrimental to game populations, although certain small mammals and other species might benefit (Wallestad 1975, Martinka 1967, and Bayless 1969). While number estimates are not possible, losses of antelope, mule deer, and sage grouse, in particular, would be significant at least locally because the loss of essential shrub species on winter habitat would outweigh benefits to wildlife from grass and forb production increases under this alternative.

Elk habitat conditions would improve slightly because of the importance to them of the increased forage that would be produced. Whether elk populations would respond would depend on hunting pressure as influenced by landowner attitudes toward increased elk populations.

The wild or semi-wild horses in southern Blaine County would show a moderate population increase under this alternative due to increased available forage, assuming no change in the management of these horses.

Sedimentation from the 160,000 acres of mechanical treatment of vegetation would have a slight adverse impact on fish populations in new and existing reservoirs for 2 to 5 years. No significant impact on Fort Peck Reservoir would be anticipated from sedimentation since the increase would be very small compared to the total sediment load received by the reservoir.

Although the herbicide 2,4-D is relatively short-lived, the potential for impacts on fish in stockwater ponds exists when it is sprayed on 116,000 acres of sagebrush. However, standard precautions would prevent significant impacts.

No impact on any endangered species is anticipated under this alternative. If future studies identified an endangered species within areas scheduled for vegetation treatment, no treatment would be undertaken until consultation with the U.S. Fish and Wildlife Service confirmed that such treatment could be implemented without negatively affecting the species concerned.

Prehistoric and Historic Features

Forage maximization would have the greatest adverse effect on prehistoric and historic features. More ground disturbance than in any other form of proposed management, and greater numbers of livestock are called for in this alternative. Both short-term and long-term impacts would be expected. Mechanical treatment would cause short-term impact through ground disturbance, while livestock increase would have a long-term effect.

Under the proposed action or grazing reduction alternative, about 17,000 acres of ground would be disturbed by vegetation manipulation or construction of range improvements. This would increase by 367,774 acres under this alternative. As shown in Chapter 3, ground disturbance is potentially the

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most destructive impact to cultural resources. While approximately 54 sites were predicted to suffer impacts under the proposed action or grazing reduction alternative, it is possible that over 1,100 prehistoric sites could be impacted by the vegetation manipulation in this alternative. However, sagebrush spraying would not be a major impact and 360 of the affected sites could be in lands which would be sprayed. In addition, an increased number of historic sites would be impacted, but the number is not known. It is probable that most impacts to historic sites from vegetation manipulation would be to ranching or homestead features.

ERRATA

ERRATA

The following changes in the DES are not significant enough to reprint the entire page in Part 2 and were generally not included in Part 1; however, they should be made to improve the accuracy of the data presented in the draft.

Page 1-17, Figure 1-8. Caption should be changed to "Four hundred and thirty-six stockwater reservoirs are proposed in the ES area."

Page 2-20. The last sentence in the discussion of Potential Livestock Forage Productivity should be changed to "Comparable data was not available for existing and revised AMP areas."

Page 2-21, Table 2-9. The units under the heading Proposed AMP Areas should be (acres) rather than (AUMs).

Page 2-22. The last sentence in the first full paragraph should be deleted.

Page 2-32. The last sentence of the third paragraph under Small Mammals should read: "The team will be responsible for providing data input for any decision affecting prairie dog control."

Page 2-85. The seventh sentence in the second paragraph under Livestock Grazing should read as follows: "Breeding season usually runs from about mid-June to the end of August, thus calving begins around mid-March and runs to about the end of May."

Page 3-20. The sixth sentence under Sharp-tailed Grouse should read as follows: "Also, the 436 reservoirs proposed would tend to even out the distribution of grazing pressure within the ES area."

Page 6-1. The fifth sentence under Wildlife should read as follows: "Some of the proposed contour furrowing, sagebrush spraying, and plowing and seeding would result in long-term productivity losses for antelope, sage grouse, and other species."

Page 8-20. The second sentence in the fourth paragraph under Wildlife should read as follows: "There is evidence that many existing wildlife populations could be at least doubled if management were directed toward their benefit."

Page 8-4. The figures for the range condition classes with the proposed action in the long term should read as follows:

excellent	859,063 acres
good	1,337,542 acres
fair	574,462 acres
poor	34,881 acres

Page 8-9. The figure for AUMs harvested annually for Alternative A in the long term should be 279,681 AUMs instead of 294,401 AUMs.

Page A-13. Table title should be "Range Improvements by AMP."

Page A-47. The Arrow Creek allotment (9783) should show a range survey of 227 AUMs, an initial stocking rate with an AMP of 227 AUMs, and a 15-year projected stocking rate of 227 AUMs.

Page A-85. The Drag Creek allotment (4966) should have 12,997 acres of rangeland in good condition, and 6,330 acres in fair condition.

Page R-2. The second reference under Hormay A.L. should read: "1970, Principles of rest rotation grazing and multiple land use management: U.S. Dept. of the Interior, Bureau of Land Management and U.S. Dept. of Agriculture, Forest Service. 26 pp.

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